



6°

4.3°

3°

JSAT

# CONNECTING THE WORLD.

**GT-SAT International**, is a world leader in development and manufacturing of LNBs and innovative accessories for the reception of the digital television. Being present worldwide, our products are distributed in Europe, North Africa, Middle East, India, Latin America and Russia.

With more than 40 different LNB models and numerous other equipment, we serve a wide variety of tier one TV operators and leading brands.

The company maintains strict standards regarding manufacturing, distribution and delivery of its products.

**Our strength:** a rapid and instant adaptation of our products to the market needs. We develop high quality and innovative products according to the market requirements. All our products are tested and approved before their launch to the market and this way we guarantee the premium quality of the hardware.

**This unique approach allows for a true holistic view for product and system design.**

We would like to thank all our customers for their constant support and belief over the years.



Guil Mediouni  
*President*



## LNB

GT-SAT LNBs

RELOOK LNB

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LH Line

**25**

# LNB





**GT-SLRC1**  
SINGLE L - SHAPE



**GT-TL1**  
TWIN L - SHAPE



**GT-QDL1**  
QUAD L - SHAPE

|                               |                                                                                                 |                                                                                                 |                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| INPUT FREQUENCY RANGE         | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        |
| OUTPUT FREQUENCY RANGE        | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          |
| LO. FREQUENCY                 | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      |
| LO. FREQUENCY STABILITY       | +/- 0.5 MHz (max.) at r.t.                                                                      | +/- 0.5 MHz (maximum) at r.t.                                                                   | +/- 0.5 MHz (maximum) at r.t.                                                                   |
| LO. FREQUENCY PHASE NOISE     | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) |
| NOISE FIGURE                  | 0.1 dB (typical)                                                                                | 0.1 dB (typical)                                                                                | 0.1 dB (typical)                                                                                |
| CONVERSION GAIN               | 57 ~ 61 dB                                                                                      | 57 ~ 61 dB                                                                                      | 57 ~ 61 dB                                                                                      |
| GAIN FLATNESS 26MHz BANDWIDTH | +/- 0.5 dB (typical)                                                                            | +/- 0.5 dB (typical)                                                                            | +/- 0.5 dB (typical)                                                                            |
| POLARITY SWITCHING VOLTAGE    | VERTICAL: 11.0 ~14.0 Vdc<br>HORIZONTAL: 16.0 ~ 20.0 Vdc                                         | VERTICAL: 11.0 ~14.0 Vdc<br>HORIZONTAL: 16.0 ~ 20.0 Vdc                                         | VERTICAL: 11.0 ~14.0 Vdc<br>HORIZONTAL: 16.0 ~ 20.0 Vdc                                         |
| BAND SWITCHING                | Low Band: 0 KHz<br>High Band: 22 KHz (+/- 4KHz)                                                 | Low Band: 0 KHz<br>High Band: 22 KHz (+/- 4KHz)                                                 | Low Band: 0 KHz<br>High Band: 22 KHz (+/- 4KHz)                                                 |
| CROSS-POL. ISOLATION          | 22 dB (typical)                                                                                 | 22 dB (typical)                                                                                 | 22 dB (typical)                                                                                 |
| IMAGE REJECTION               | 40 dB (typical)                                                                                 | 40 dB (typical)                                                                                 | 40 dB (typical)                                                                                 |
| OUTPUT SPURIOUS               | < -60 dBm                                                                                       | < -60 dBm                                                                                       | < -60 dBm                                                                                       |
| CURRENT CONSUMPTION           | 100 mA (typical)                                                                                | 140 mA (typical)                                                                                | 150 mA (typical)                                                                                |
| OUTPUT CONNECTOR TYPE         | 75 Ohms F-Female                                                                                | 75 Ohms F-Female                                                                                | 75 Ohms F-Female                                                                                |
| OPERATING TEMPERATURE RANGE   | -40°C ~ +65°C                                                                                   | -40°C ~ +65°C                                                                                   | -40°C ~ +65°C                                                                                   |
| FEED LENGTH                   | 29 mm                                                                                           | 29 mm                                                                                           | 42 mm                                                                                           |



**GT-QTL1**  
QUATTRO L - SHAPE



**GT-QT40M**  
QUATTRO L - SHAPE



**GT-OCL1**  
OCTO L - SHAPE

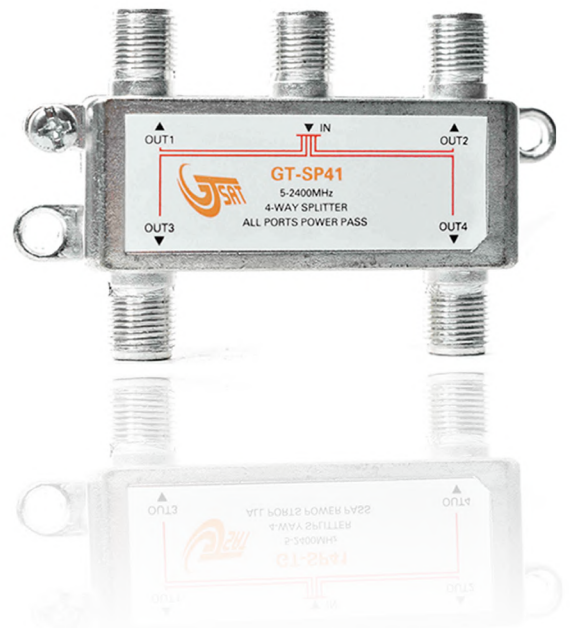
|                               |                                                                                                 |                                                                                                 |                                                                                                 |
|-------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| INPUT FREQUENCY RANGE         | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        | Low Band: 10.7 ~ 11.7 GHz<br>High Band: 11.7 ~ 12.75 GHz                                        |
| OUTPUT FREQUENCY RANGE        | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          | Low Band: 950 ~ 1950 GHz<br>High Band: 1100 ~ 2150 GHz                                          |
| LO. FREQUENCY                 | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      | Low Band: 9.75 GHz<br>High Band: 10.60 GHz                                                      |
| LO. FREQUENCY STABILITY       | +/- 0.5 MHz (maximum) at r.t.                                                                   | +/- 0.5 MHz (maximum) at r.t.                                                                   | +/- 0.5 MHz (maximum) at r.t.                                                                   |
| LO. FREQUENCY PHASE NOISE     | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) | -60 dBc / Hz at 1 KHz (max.)<br>-85 dBc / Hz at 10 KHz (max.)<br>-97 dBc / Hz at 100 KHz (max.) |
| NOISE FIGURE                  | 0.1 dB (typical)                                                                                | 0.1 dB (typical)                                                                                | 0.1 dB (typical)                                                                                |
| CONVERSION GAIN               | 57 ~ 61 dB                                                                                      | 57 ~ 61 dB                                                                                      | 57 ~ 61 dB                                                                                      |
| GAIN FLATNESS 26MHz BANDWIDTH | +/- 0.5 dB (typical)                                                                            | +/- 0.5 dB (typical)                                                                            | +/- 0.5 dB (typical)                                                                            |
| POLARITY SWITCHING VOLTAGE    | -                                                                                               | -                                                                                               | VERTICAL: 11.0 ~ 14.0 Vdc<br>HORIZONTAL: 16.0 ~ 20.0 Vdc                                        |
| BAND SWITCHING                | -                                                                                               | -                                                                                               | Low Band: 0 KHz<br>High Band: 22 KHz (+/- 4 KHz)                                                |
| CROSS-POL. ISOLATION          | 22 dB (typical)                                                                                 | 22 dB (typical)                                                                                 | 22 dB (typical)                                                                                 |
| IMAGE REJECTION               | 40 dB (typical)                                                                                 | 40 dB (typical)                                                                                 | 40 dB (typical)                                                                                 |
| OUTPUT SPURIOUS               | < -60 dBm                                                                                       | < -60 dBm                                                                                       | < -60 dBm                                                                                       |
| CURRENT CONSUMPTION           | 240 mA (typical)                                                                                | 240 mA (typical)                                                                                | 180 mA (typical)                                                                                |
| OUTPUT CONNECTOR TYPE         | 75 Ohms F-Female                                                                                | 75 Ohms F-Female                                                                                | 75 Ohms F-Female                                                                                |
| OPERATING TEMPERATURE RANGE   | -40°C ~ +65°C                                                                                   | -40°C ~ +65°C                                                                                   | -40°C ~ +65°C                                                                                   |
| FEED LENGTH                   | 42 mm                                                                                           | 35 mm                                                                                           | 42 mm                                                                                           |



**RE-MINI S**  
SINGLE STRAIGHT FEED

|                               |                                                                                                       |
|-------------------------------|-------------------------------------------------------------------------------------------------------|
| INPUT FREQUENCY RANGE         | Low Band : 10.7 ~ 11.7 GHz<br>High Band : 11.7 ~ 12.75 GHz                                            |
| OUTPUT FREQUENCY RANGE        | Low Band : 950 ~ 1950 MHz<br>High Band : 1100 ~ 2150 MHz                                              |
| LO. FREQUENCY                 | Low Band : 9.75 GHz<br>High Band : 10.60 GHz                                                          |
| LO. FREQUENCY STABILITY       | +/- 0.5 MHz (maximum) at r.t                                                                          |
| LO. FREQUENCY PHASE NOISE     | -60 dBc / Hz at 1 KHz (maximum)<br>-85 dBc / Hz at 10 KHz (maximum)<br>-97 dBc / Hz at 100 KHz (max.) |
| NOISE FIGURE                  | 0.1 dB (typical)                                                                                      |
| CONVERSION GAIN               | 60 ~ 64 dB                                                                                            |
| GAIN FLATNESS 26MHz BANDWIDTH | +/- 0.5dB (typical)                                                                                   |
| POLARITY SWITCHING VOLTAGE    | VERTICAL : 11.0 ~ 14.0 Vdc<br>HORIZONTAL : 16.0 ~ 20.0 Vdc                                            |
| BAND SWITCHING                | Low Band : 0 kHz<br>High Band : 22 kHz (+/- 4kHz)                                                     |
| CROSS-POL. ISOLATION          | 22 dB (typical)                                                                                       |
| IMAGE REJECTION               | 40 dB (minimum)                                                                                       |
| OUTPUT SPURIOUS               | < -60 dBm                                                                                             |
| CURRENT CONSUMPTION           | 90 mA (typical)                                                                                       |
| OUTPUT CONNECTOR TYPE         | 75 Ohms F-Female                                                                                      |
| OPERATING TEMPERATURE RANGE   | -40°C ~ +65°C                                                                                         |
| FEED LENGTH                   | 29 mm                                                                                                 |

# ACCESSORIES





MDU-AGC AMPLIFIER

GT-AGC1

GT-AGCAMP-2

|                              |                       |
|------------------------------|-----------------------|
| NUMBER OF INPUTS             | 1                     |
| NUMBER OF OUTPUTS            | 1                     |
| FREQUENCY RANGE              | 950 ~ 2150 MHz        |
| MAXIMUM GAIN                 | 33 dB<br>44 dB        |
| MAXIMUM INPUT LEVEL          | -17 dBm               |
| MINIMUM INPUT LEVEL          | -47 dBm               |
| MINIMUM OUTPUT LEVEL         | 8 dB (maximum)        |
| GAIN FLATNESS OVER FULL BAND | 10 dB                 |
| AGC RANGE                    | 30 dB                 |
| LED INDICATION               | RED / YELLOW / GREEN* |
| NOISE FIGURE                 | 6 dB                  |
| RETURN LOSS                  | > 10 dB               |
| CURRENT CONSUMPTION          | 150 mA                |
| MAXIMUM DC PASS TO LNB       | 800 mA                |
| OPERATING TEMPERATURE        | -20°C - 60°C          |
| POWER SUPPLY                 | 90-240V AC, 12V DC 1A |
| DIMENSIONS                   | 95 x 60 x 35 mm       |
| ESD PROTECTION               | 8 kV                  |

|                                |
|--------------------------------|
| 1 TRUNK LINE + 1 for PSU       |
| 1 TRUNK LINE + 1 TEST          |
| 950 ~ 2150 MHz                 |
| @950 MHz: 33 dB                |
| @2150 MHz: 44 dB               |
| Aggregated for 24 TPs: -17 dBm |
| Aggregated for 24 TPs: -47 dBm |
| Aggregated for 24 TPs: 8 dBm   |
| Coax Cable compensation: 10 dB |
| Aggregated for 24 TPs: 30 dB   |
| RED / YELLOW / GREEN*          |
| 6 dB                           |
| > 10 dB                        |
| 150 mA                         |
| 800 mA                         |
| -20 - +60°C                    |
| INPUT: 90-240V AC              |
| OUTPUT: 12V DC 1A              |
| 95 x 60 x 35 cm                |
| 8 kV                           |

\*RED: Signal Underdrive (Signal too Low)  
YELLOW: Signal Overdrive (Signal too High)  
GREEN: Signal Within The Input Range

|                               |                                                                                                                          |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| NUMBER OF INPUTS              | 1                                                                                                                        |
| NUMBER OF OUTPUTS             | 1                                                                                                                        |
| FREQUENCY RANGE               | 950 ~ 2150 MHz                                                                                                           |
| MAX. OUTPUT LEVEL SAT @-35 dB | 110 dBμV                                                                                                                 |
| IMD3                          | 15 to 20 dB                                                                                                              |
| GAIN TOTAL                    | 950 MHz: 15.0 dB<br>1200 MHz: 16.0 dB<br>1450 MHz: 17.0 dB<br>1750 MHz: 18.0 dB<br>2050 MHz: 19.5 dB<br>2150 MHz 20.0 dB |
| NOISE FIGURE                  | 5 dB                                                                                                                     |
| RETURN LOSS                   | 8 dB                                                                                                                     |
| IMPEDANCE                     | 75 Ω                                                                                                                     |
| CURRENT CONSUMPTION           | 50 mA                                                                                                                    |
| DC PASSTHROUGH                | Yes                                                                                                                      |
| LINE POWER DC VOLTAGE (MAX.)  | 15 to 20 VDC                                                                                                             |
| SCREENING EFFICIENCY:         | EN50083-2 (Class A)                                                                                                      |
| CONNECTOR TYPE:               | F-Female                                                                                                                 |
| MAIN MATERIAL:                | Zinc Diecast                                                                                                             |



GT-INLS20  
IN-LINE AMPLIFIER



**GT-PSU12-1A**  
POWER SUPPLY - 12V 1A

|                                        | VALUE            | CONDITION                                   |
|----------------------------------------|------------------|---------------------------------------------|
| INPUT VOLTAGE                          | 90 - 240V AC     |                                             |
| FREQUENCY                              | 45 - 65 Hz       |                                             |
| INPUT CURRENT                          | 0.16 A max.      |                                             |
| OUTPUT VOLTAGE                         | 12V              |                                             |
| OUTPUT VOLTAGE TOLERANCE               | ± 5%             |                                             |
| MAX. OUTPUT CURRENT                    | 1A               |                                             |
| OUTPUT POWER                           | 12W              |                                             |
| STAND-BY POWER                         | 0.1W max.        |                                             |
| LINE REGULATION                        | ± 2%             |                                             |
| LOAD REGULATION                        | ± 5%             |                                             |
| AC LEAKAGE CURRENT                     | 0.25 mA max.     | @240V AC                                    |
| RIPPLE AT MAX. POWER                   | 40 mVpp          | -                                           |
| EFFICIENCY                             | > 85%            | @115/230V AC with 1/4, 1/2, 3/4 & full load |
| RISE TIME                              | 40ms max.        | @100V AC max. load                          |
| TURN-ON TIME                           | < 2s             | @115V AC max. load                          |
| INSULATION RESISTENCE                  | > 50 MΩ          | @500V DC                                    |
| OVERVOLTAGE PROTECTION                 | YES              | -                                           |
| OVERCURRENT & SHORT CIRCUIT PROTECTION | YES              | > 30 sec.                                   |
| SURGE & OVERCURRENT PROTECTION         | YES              | ITU-T K21                                   |
| SAFETY PROTECTION                      | YES              | IEC60950 and IEC60065                       |
| FIRE SECURITY                          | YES              | UL94-V0                                     |
| RESISTENCE TO IMPACT                   | YES              | 20 times drop from height of 1m             |
| VIBRATION                              | YES              | IEC 721-3-2M2 and IEC 721-3-3M3             |
| AC INPUT PLUG                          | Type A Male Plug | Colombian electrical outlets                |
| DC OUTPUT PLUG                         | Jack 5.5 / 2.2mm | cable 24 AWG / length of 180 cm             |
| OPERATING TEMPERATURE                  | -0°C - 40°C      | -                                           |
| STORAGE TEMPERATURE                    | -10°C - 80°C     | -                                           |
| HUMIDITY                               | 5% - 90%         | 0°C - 40°C, 72 hours                        |
| DIMENSIONS                             | 69 x 38 x 27 cm  | -                                           |



**GT-PSU12-1.5A**  
POWER SUPPLY - 12V 1.5A

|                                        | VALUE            | CONDITION                                   |
|----------------------------------------|------------------|---------------------------------------------|
| INPUT VOLTAGE                          | 90 - 240V AC     |                                             |
| FREQUENCY                              | 45 - 65 Hz       |                                             |
| INPUT CURRENT                          | 0.5 A max.       |                                             |
| OUTPUT VOLTAGE                         | 12V              |                                             |
| OUTPUT VOLTAGE TOLERANCE               | ± 5%             |                                             |
| MAX. OUTPUT CURRENT                    | 1.5A             |                                             |
| OUTPUT POWER                           | 18W              |                                             |
| STAND-BY POWER                         | 0.3W max.        |                                             |
| LINE REGULATION                        | ± 3%             |                                             |
| LOAD REGULATION                        | ± 5%             |                                             |
| AC LEAKAGE CURRENT                     | 0.25 mA max.     | @240V AC                                    |
| RIPPLE AT MAX. POWER                   | 120 mVpp         | -                                           |
| EFFICIENCY                             | > 80%            | @115/230V AC with 1/4, 1/2, 3/4 & full load |
| RISE TIME                              | 40ms max.        | @100V AC max. load                          |
| TURN-ON TIME                           | < 3s             | @115V AC max. load                          |
| INSULATION RESISTENCE                  | > 50 MΩ          | @500V DC                                    |
| OVERVOLTAGE PROTECTION                 | YES              | -                                           |
| OVERCURRENT & SHORT CIRCUIT PROTECTION | YES              | > 30 sec.                                   |
| SURGE & OVERCURRENT PROTECTION         | YES              | ITU-T K21                                   |
| SAFETY PROTECTION                      | YES              | UL / EN / IEC62368 (IEC60950, IEC60065)     |
| FIRE SECURITY                          | YES              | UL94-V0                                     |
| RESISTENCE TO IMPACT                   | YES              | 20 times drop from height of 1m             |
| VIBRATION                              | YES              | IEC 721-3-2M2 and IEC 721-3-3M3             |
| AC INPUT PLUG                          | Type A Male Plug | Colombian electrical outlets                |
| DC OUTPUT PLUG                         | Jack 5.5 / 2.1mm | cable 24 AWG / length of 150 cm             |
| OPERATING TEMPERATURE                  | -0°C - 40°C      | -                                           |
| STORAGE TEMPERATURE                    | -10°C - 80°C     | -                                           |
| HUMIDITY                               | 5% - 90%         | 0°C - 40°C, 72 hours                        |
| DIMENSIONS                             | 70 x 33 x 43 cm  | -                                           |



**GT-PSU12-2A**  
POWER SUPPLY - 12V 2A

|                                        | VALUE            | CONDITION                                   |
|----------------------------------------|------------------|---------------------------------------------|
| INPUT VOLTAGE                          | 90 - 240V AC     |                                             |
| FREQUENCY                              | 45 - 65 Hz       |                                             |
| INPUT CURRENT                          | 0.32 A max.      |                                             |
| OUTPUT VOLTAGE                         | 12V              |                                             |
| OUTPUT VOLTAGE TOLERANCE               | ± 5%             |                                             |
| MAX. OUTPUT CURRENT                    | 2A               |                                             |
| OUTPUT POWER                           | 24W              |                                             |
| STAND-BY POWER                         | 0.1W max.        |                                             |
| LINE REGULATION                        | ± 2%             |                                             |
| LOAD REGULATION                        | ± 5%             |                                             |
| AC LEAKAGE CURRENT                     | 0.25 mA max.     | @240V AC                                    |
| RIPPLE AT MAX. POWER                   | 40 mVpp          | -                                           |
| EFFICIENCY                             | > 85%            | @115/230V AC with 1/4, 1/2, 3/4 & full load |
| RISE TIME                              | 40ms max.        | @100V AC max. load                          |
| TURN-ON TIME                           | < 2s             | @115V AC max. load                          |
| INSULATION RESISTENCE                  | > 50 MΩ          | @500V DC                                    |
| OVERVOLTAGE PROTECTION                 | YES              | -                                           |
| OVERCURRENT & SHORT CIRCUIT PROTECTION | YES              | > 30 sec.                                   |
| SURGE & OVERCURRENT PROTECTION         | YES              | ITU-T K21                                   |
| SAFETY PROTECTION                      | YES              | IEC60950 and IEC60065                       |
| FIRE SECURITY                          | YES              | UL94-V0                                     |
| RESISTENCE TO IMPACT                   | YES              | 20 times drop from height of 1m             |
| VIBRATION                              | YES              | IEC 721-3-2M2 and IEC 721-3-3M3             |
| AC INPUT PLUG                          | -                | -                                           |
| DC OUTPUT PLUG                         | Jack 5.5 / 2.1mm | -                                           |
| OPERATING TEMPERATURE                  | -0°C - 40°C      | -                                           |
| STORAGE TEMPERATURE                    | -10°C - 80°C     | -                                           |
| HUMIDITY                               | 5% - 90%         | 0°C - 40°C, 72 hours                        |
| DIMENSIONS                             | 76 x 43 x 32 cm  | -                                           |

## ACCESSORIES

### RJ45 CONNECTOR



**RE-RJ45C**  
FOR UTP CABLE

|               |                               |                            |
|---------------|-------------------------------|----------------------------|
| ELECTRICAL    | <b>Voltage Rating:</b>        | 125V AC                    |
|               | <b>Current Rating:</b>        | 1.5 A                      |
|               | <b>Contact Resistance:</b>    | 30 mΩ MAX.                 |
|               | <b>Insulation Resistance:</b> | 500 MΩ MIN 500 VDC.        |
|               | <b>Dielectric Withsand:</b>   | 500 VAC R.M.S. 60Hz, 1MIN. |
| MECHANICAL    | <b>Insertion Force:</b>       | 10 N                       |
|               | <b>Pull-out Force:</b>        | 10 N                       |
|               | <b>Locking Force:</b>         | 75 N                       |
|               | <b>Mechanical Operations:</b> | 250 Mating cycles Min.     |
| MATERIAL      | <b>Housing:</b>               | PC (94V-0)                 |
|               | <b>Contact:</b>               | Phosphor Bronze T = 0.35mm |
|               | <b>Plating:</b>               | Au 3u"                     |
|               | <b>Shield:</b>                | H65 Brass T = 0.25 mm      |
| ENVIRONMENTAL | <b>Storage:</b>               | -40°C to 85°C              |
|               | <b>Operation:</b>             | 0°C to 70°C                |

**CONFORMING TO FCC PART 68.**

## COMPRESSION CONNECTORS



**GT-FSCOM7**



**GT-FCOM7**

## SURGE PROTECTOR



**GT-SP**  
SURGE PROTECTOR

|                                                  |                        |
|--------------------------------------------------|------------------------|
| FREQUENCY RANGE                                  | 5-2500 MHz             |
| INSERTION LOSS                                   | 5-1000 MHz >0.4 dB     |
|                                                  | 1000-1500 MHz >0.6 dB  |
|                                                  | 1500-2150 MHz >1.0 dB  |
|                                                  | 2150-2500 MHz >1.5dB   |
| RETURN LOSS                                      | 5-1000 MHz >18 dB      |
|                                                  | 1000-1500 MHz >16 dB   |
|                                                  | 1500-2150 MHz >14 dB   |
|                                                  | 2150-2500 MHz >10 dB   |
| NOM. IMPULSE DISCHARGE CURRENT                   | 5KA (@8/20uS)          |
|                                                  |                        |
| FIRING VOLTAGE (GAS TUBE ARRESTOR, VOLTS CHOOSE) | 56V, 90V, 150V or 230V |
| POWER PASS                                       | 18V/1A maximum         |
| IMPEDANCE                                        | 75Ω                    |
| CONNECTOR TYPE                                   | Female to Female       |
| SIZE                                             | 13 x 41 mm             |
| WEIGHT                                           | 18gr                   |

### SPLITTERS



**GT-SP21**  
(SPLITTER 2x1)



**GT-SP41**  
(SPLITTER 4x1)

|                       |                        |                        |
|-----------------------|------------------------|------------------------|
| INPUT FREQUENCY RANGE | 5 ÷ 2400 MHz           | 5 ÷ 2400 MHz           |
| INSERTION LOSS        | ≤ 5 dB                 | ≤ 10 dB                |
| RETURN LOSS           | ≥ 10 dB                | ≥ 10 dB                |
| DC PASS               | DC Pass max. 24V, 0.8A | DC Pass max. 24V, 0.8A |



**GT-SBSW24**  
SWITCH 2X4  
950 - 2150 MHZ



**GT-SBSW28**  
Switch 2x8  
950 - 2150 MHZ

|                     |                                 |                                 |
|---------------------|---------------------------------|---------------------------------|
| FREQUENCY RANGE     | 950 - 2150 MHz                  | 950 - 2150 MHz                  |
| CONTROL             | 13/18 V + 0/22 KHz              | 13/18 V + 0/22 KHz              |
| CONTROL HISTERESIS  | 0.5V                            | 0.5V                            |
| INSERTION LOSS      | 5 dB maximum                    | 5 dB maximum                    |
| ISOLATION           | 20 dB minimum<br>18 dB minimum  | 20 dB minimum<br>18 dB minimum  |
| RETURN LOSS         | -10 dB minimum<br>-7 dB minimum | -10 dB minimum<br>-7 dB minimum |
| MAXIMUM INPUT LEVEL | 0 dBm                           | 0 dBm                           |
| SUPPLY VOLTAGE      | 12 - 20V                        | 12 - 20V                        |
| POWER CONSUMPTION   | 32mA maximum                    | 40mA maximum                    |
| TEMPERATURE RANGE   | -30°C - +70°C                   | -30°C - +70°C                   |
| IMPEDANCE           | 75Ω                             | 75Ω                             |
| INPUT               | 2                               | 2                               |
| OUTPUT              | 4                               | 8                               |
| POWER PASSING       | 500 mA                          | 500 mA                          |



**GT-SBSW34**  
Switch 3x4  
54 - 800 MHz  
950 - 1450 MHz

#### SATELLITE

|                            |                                           |
|----------------------------|-------------------------------------------|
| NUMBER OF INPUTS           | 2                                         |
| FREQUENCY RANGE            | 950 - 1450 MHz                            |
| INPUT & OUTPUT RETURN LOSS | 10 dB (minimum)                           |
| INSERTION LOSS GAIN        | -2 to +5 dB                               |
| MAXIMUM INPUT              | -23 dBm per Transponder (@-40 dBc IMD)    |
|                            | 16 Transponders input operational @-20dBm |

#### VHF/UHF/CABLE/ATSC PASSIVE INPUT

|                  |                 |
|------------------|-----------------|
| NUMBER OF INPUTS | 1               |
| FREQUENCY RANGE  | 54 to 806 MHz   |
| THROUGH LOSS     | 12 dB (maximum) |

#### VHF-UHF/SAT ISOLATION (BTW. FILTER 3 dB POINT)

|                                                            |                   |
|------------------------------------------------------------|-------------------|
| BETWEEN 700 MHz and 950 MHz                                | 45 dB (minimum)   |
| BETWEEN 806 MHz AND 950 MHZ                                | 35 dB (minimum)   |
| THIRD-ORDER IMD PRODUCTS<br>(FOR TWO-ONE, @-15 dBm OUTPUT) | -50 dBc (maximum) |

|                                       |                         |
|---------------------------------------|-------------------------|
| CROSS-POL. ISOLATION (SAME SAT)       | 30 dB (minimum)         |
| AIN FLATNESS, ANY 24 MHz BAND (PK-PK) | < or = 1.0 dB (maximum) |
| WORST CASE BIAS CURRENT TO LNB (/IN.) | 220 mA (maximum)        |

|                                                             |                                                            |
|-------------------------------------------------------------|------------------------------------------------------------|
| BIAS CURRENT TO MULTISWITCH<br>(EACH CHANNEL FROM EACH IRD) | 30 - 80 mA (Some IRD needs min 30 mA idle current loading) |
|-------------------------------------------------------------|------------------------------------------------------------|

|                                                                |     |
|----------------------------------------------------------------|-----|
| SHORT CIRCUIT PROTECTION<br>(WORK IN CONJUNCTION WITH IRD CKT) | Yes |
|----------------------------------------------------------------|-----|

|                                                |                   |
|------------------------------------------------|-------------------|
| LNB BIAS VOLTAGE DROP<br>(THROUGH MULTISWITCH) | 0.7V DC (maximum) |
|------------------------------------------------|-------------------|

|                                                                       |                                              |
|-----------------------------------------------------------------------|----------------------------------------------|
| TYPICAL POLARISATION CONTROL VOLTAGE<br>AT IRD OUTPUT UNDER FULL LOAD | LHCP: 17.75 to 21.0V<br>RHCP: 12.75 to 14.0V |
|-----------------------------------------------------------------------|----------------------------------------------|

|                                       |                 |
|---------------------------------------|-----------------|
| MULTISWITCH LHCP/RHCP SWITCHING RANGE | 14.5 - 15.5 Vdc |
|---------------------------------------|-----------------|

|                                        |   |
|----------------------------------------|---|
| NUMBER OF COMBINED MULTISWITCH OUTPUTS | 4 |
|----------------------------------------|---|

|                 |            |
|-----------------|------------|
| CONNECTORS TYPE | "F" Female |
|-----------------|------------|

|                                      |   |
|--------------------------------------|---|
| WEATHER CAPS FOR UNUSED F CONNECTORS | 4 |
|--------------------------------------|---|

|                   |     |
|-------------------|-----|
| CASE GROUND POINT | Yes |
|-------------------|-----|

|                       |                  |
|-----------------------|------------------|
| OPERATING ENVIRONMENT | Outdoor & Indoor |
|-----------------------|------------------|

|                             |               |
|-----------------------------|---------------|
| OPERATING TEMPERATURE RANGE | -34°C ~ +60°C |
|-----------------------------|---------------|

|                                  |                 |
|----------------------------------|-----------------|
| MAX. BODY DIMENSION ( W x D x H) | 95 x 76 x 20 mm |
|----------------------------------|-----------------|

|                        |         |
|------------------------|---------|
| MASTER CARTON QUANTITY | 200 pcs |
|------------------------|---------|

## PATCH CORDS



### RE-CRJ-45 CAT5e PATCH CORD

### RE-CPCRJ-11 RJ-11 PATCH CORD

### RE-RJ45CAT6a CAT6a PATCH CORD

### RE-RJ45CAT6 CAT6 PATCH CORD

|                         |                                |                                  |                                           |                                           |
|-------------------------|--------------------------------|----------------------------------|-------------------------------------------|-------------------------------------------|
| OUTER JACKET            | Yellow PVC                     | Gray PVC                         | PVC                                       | Gray PVC                                  |
| HIGH QUALITY CONDUCTORS | -                              | 99.99% oxygen free               | -                                         | -                                         |
| LENGTH                  | 2.0 m                          | 2.0 m                            | 2.0 m                                     | 2.0 m                                     |
| CALIBER                 | 28AWG                          | 28AWG                            | 24AWG                                     | 24AWG                                     |
| CABLE DIAMETER          | 4.5 mm                         | 4.5 mm                           | 4.5 mm                                    | 4.5 mm                                    |
| WIRING CONDITION        | GOOD, PASS                     | GOOD, PASS                       | GOOD, PASS                                | GOOD, PASS                                |
| CONNECTOR LEVEL         | TIGHTENED, PASS                | TIGHTENED, PASS                  | TIGHTENED, PASS                           | TIGHTENED, PASS                           |
| INSULATION RESISTANCE   | 10MΩ minimum                   | 10MΩ minimum                     | -                                         | -                                         |
| STANDARD                | 568B                           | GOLD PINS                        | 00. CE Marking - EU<br>99. WEEE Directive | 00. CE Marking - EU<br>99. WEEE Directive |
| PROTECTIVE JACKET       | 2 x                            | 2 x                              | -                                         | -                                         |
| CONNECTOR               | 2 x Male                       | 2 x RJ11 Male                    | -                                         | -                                         |
| STANDARD                | -                              | GOLD PINS                        | RJ45 8(8)                                 | RJ45 8(8)                                 |
|                         | RJ-45 8P8C GOLD PINS CONNECTOR | RJ11 2P2C CRYSTAL HEAD CONNECTOR | CAT6a S/FTP                               | CAT6 U/UTP                                |

## HDMI CABLE

### RCA CABLE



### RE-3RCA15 3x RCA CABLE

|                         |                                                                                                                                        |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| OUTER JACKET            | PVC                                                                                                                                    |
| HIGH QUALITY CONDUCTORS | 99.99% Oxygen Free Conductors                                                                                                          |
| LENGTH                  | 1.5 m                                                                                                                                  |
| CABLE DIAMETER          | 2.6mm x 7.8mm                                                                                                                          |
| INNER WIRE              | (10 / 0.10CSS * 1C<br>+ 10 / 0.10CSS) * 3P                                                                                             |
| WIRING CONDITION        | GOOD, PASS                                                                                                                             |
| CONNECTOR LEVEL         | TIGHTENED, PASS                                                                                                                        |
| PLUG                    | BRASS RCA CONNECTORS<br>RED/YELLOW/WHITE<br>SURFACE SMOOTHNESS<br>GLOSSINESS<br>GOOD ELECTROPLATING QUALITY<br>NO ABRAISON, NO SCRATCH |



### RE-HDMI20 HIGH SPEED HDMI CABLE

|                       |                                                                  |
|-----------------------|------------------------------------------------------------------|
| OUTER JACKET          | PVC                                                              |
| HQ CONDUCTORS         | 99.99% Oxygen Free C.                                            |
| LENGTH                | 2.0 m                                                            |
| WIRE                  | 26AWG                                                            |
| VIDEO RESOLUTION      | (4k x 2k pixels) must support<br>full 1080p, 1440p, 1600p, 2160p |
| BANDWIDTH             | 13.8 Gbps speed (data transfer)                                  |
| FRAME RATE            | 120Hz                                                            |
| COLOR DEPTH           | 12 bit                                                           |
| CERTIFICATIONS        | RoHS, UL, CE, FCC,<br>ISO9001: 2008, ISO14001: 2004              |
| VOLTAGE               | 300 VDC 5MΩ / 10ms                                               |
| INSULATION RESISTANCE | 10MΩ / 10ms                                                      |
| CONTACT RESISTANCE    | 2 Ω maximum                                                      |
| OPERATING TEMPERATURE | -25°C - +80°C                                                    |
| IMPEDANCE DIFFERENCE  | 100 +/- 10Ω (TDR)                                                |

- 3D compatibility, 4k x 2k, ARC return audio channel
- Support 7.1 surround sound formats and lossless audio formats (DTS-HD & Dolby Digital True HD)

# CABLES





**RE-1/2" RF**  
Coaxial Cable 1/2" RF 50Ω

|                         |                                   |                        |
|-------------------------|-----------------------------------|------------------------|
| INNER CONDUCTOR         | <b>Copper Clad Aluminium</b>      | <b>3.55 ±0.02</b>      |
| DIELECTRIC              | <b>Physical Foam Polyethylene</b> | <b>8.89 ± 0.2</b>      |
| OUTER CONDUCTOR         | <b>Helical Copper Tube</b>        | <b>12.19 ± 0.2</b>     |
| JACKET                  | <b>Black PE</b>                   | <b>13.46 ± 0.2</b>     |
| CAPACITANCE             |                                   | <b>80.0 pF/m</b>       |
| IMPEDANCE               |                                   | <b>50.0 Ω</b>          |
| VELOCITY                |                                   | <b>83.0 %</b>          |
| PEAK POWER RATING       |                                   | <b>19.0 %</b>          |
| RF PEAK VOLTAGE         |                                   | <b>1.1 kV</b>          |
| INSULATION RESISTANCE   |                                   | <b>&gt; 5000 MΩ/km</b> |
| CUT-OFF FREQUENCY       |                                   | <b>12.5 GHz</b>        |
| INSULATION VOLTAGE      |                                   | <b>2.5 kVrms</b>       |
| JACKET SPARK            |                                   | <b>5.0 kVrms</b>       |
| SHIELDING EFFECTIVENESS |                                   | <b>&gt; 120</b>        |

|                                 |                      |
|---------------------------------|----------------------|
|                                 | <b>50 mm</b>         |
| MINIMUM SINGLE BENDING RADIUS   | <b>125 mm</b>        |
| MINIMUM REPEATED BENDING RADIUS | <b>15</b>            |
| NUMBER OF BENDS                 | <b>110 kg</b>        |
| TENSILE STRENGTH                | <b>-55°C ~ +85°C</b> |
| STORAGE TEMPERATURE             | <b>-20°C ~ +60°C</b> |
| INSTALLATION TEMPERATURE        | <b>-55°C ~ +85°C</b> |
| OPERATING TEMPERATURE           |                      |

|            |              |                        |   |
|------------|--------------|------------------------|---|
| VSWR ≤1.15 | -            | <b>10M ~ 3000MHz</b>   | - |
| VSWR ≤1.10 | <b>≤1.10</b> | <b>800M ~ 1000MHz</b>  | - |
|            | <b>≤1.15</b> | <b>1700M ~ 2000MHz</b> | - |
|            |              | <b>2100M ~ 2400MHz</b> |   |



**RE-7/8" RF**  
Coaxial Cable 7/8" RF 50Ω

|                                       |                        |
|---------------------------------------|------------------------|
| <b>Smooth Copper Tube</b>             | <b>9</b>               |
| <b>Physical Foam Polyethylene</b>     | <b>22.10</b>           |
| <b>Angular Corrugated Copper Tube</b> | <b>25.00</b>           |
| <b>Black PE</b>                       | <b>28.00</b>           |
| CAPACITANCE                           | <b>76.0 pF/m</b>       |
| IMPEDANCE                             | <b>50.0 Ω</b>          |
| VELOCITY                              | <b>88.0 %</b>          |
| PEAK POWER RATING                     | <b>91.0 %</b>          |
| RF PEAK VOLTAGE                       | <b>3.0 kV</b>          |
| INSULATION RESISTANCE                 | <b>&gt; 5000 MΩ/km</b> |
| CUT-OFF FREQUENCY                     | <b>5.2 GHz</b>         |
| INSULATION VOLTAGE                    | <b>10 kVrms</b>        |
| JACKET SPARK                          | <b>8.0 kVrms</b>       |
| SHIELDING EFFECTIVENESS               | <b>&gt; 120</b>        |

|                                 |                      |
|---------------------------------|----------------------|
|                                 | <b>90 mm</b>         |
| MINIMUM SINGLE BENDING RADIUS   | <b>250 mm</b>        |
| MINIMUM REPEATED BENDING RADIUS | <b>15</b>            |
| NUMBER OF BENDS                 | <b>147 kg</b>        |
| TENSILE STRENGTH                | <b>-55°C ~ +85°C</b> |
| STORAGE TEMPERATURE             | <b>-20°C ~ +60°C</b> |
| INSTALLATION TEMPERATURE        | <b>-55°C ~ +85°C</b> |

|            |              |                        |   |
|------------|--------------|------------------------|---|
| VSWR ≤1.15 | -            | <b>10M ~ 3000MHz</b>   | - |
| VSWR ≤1.10 | <b>≤1.10</b> | <b>800M ~ 1000MHz</b>  | - |
|            | <b>≤1.15</b> | <b>1700M ~ 2000MHz</b> | - |
|            |              | <b>2100M ~ 2400MHz</b> |   |


**RE-QR 540-88**

**RE-QR 860-88**

|                                         |                                                       |                                                       |
|-----------------------------------------|-------------------------------------------------------|-------------------------------------------------------|
| CABLE TYPE                              | 540 series                                            | 860 series                                            |
| CONSTRUCTION TYPE                       | Welded                                                | Welded                                                |
| ENVIRONMENTAL SPACE                     | Riser                                                 | Aerial                                                |
| CABLE LENGTH                            | 60°C                                                  | 899.16 m                                              |
| DIAMETER OVER CENTER CONDUCTOR, NOMINAL | 1.127 m                                               | 5.156 mm                                              |
| DIAMETER OVER DIELECTRIC, NOMINAL       | 3.15 mm                                               | 21.031 mm                                             |
| DIAMETER OVER JACKET, NOMINAL           | 13.056 mm                                             | 24.384 mm                                             |
| DIAMETER OVER OUTER CONDUCTOR, NOMINAL  | 15.494 mm                                             | 21.844 mm                                             |
| JACKET THICKNESS, NOMINAL               | 13.716 mm                                             | 1.27 mm                                               |
| OUTER CONDUCTOR THICKNESS, NOMINAL      | 0.889 mm                                              | 0.406 mm                                              |
| CAPACITANCE                             | 0.343 mm                                              | 0.343 mm                                              |
| CAPACITANCE TOLERANCE                   | 50.197 pF/m                                           | 50.197 pF/m                                           |
| CHARACTERISTIC IMPEDANCE                | ±1.0 pF/ft                                            | ±1.0 pF/ft                                            |
| CHARACTERISTIC IMPEDANCE TOLERANCE      | 75 Ω                                                  | 75 Ω                                                  |
| DC RESISTANCE NOTE                      | ±2 Ω                                                  | ±2 Ω                                                  |
|                                         | Nominal values based on<br>standard condition of 20°C | Nominal values based on<br>standard condition of 20°C |
| DC RESISTANCE, INNER CONDUCTOR, NOMINAL | 3.346 Ω/km                                            | 1.345 Ω/km                                            |
| DC RESISTANCE, LOOP, NOMINAL            | 5.282 Ω/km                                            | 2.395 Ω/km                                            |
| DC RESISTANCE, OUTER CONDUCTOR, NOMINAL | 1.936 Ω/km                                            | 1.05 Ω/km                                             |
| JACKET SPARK TEST VOLTAGE               | 5000 Vac                                              | 5000 Vac                                              |
| NOMINAL VELOCITY OF PROPAGATION (NVP)   | 88%                                                   | 88%                                                   |
| OPERATING FREQUENCY BAND                | 5-3000 MHz                                            | 5-3000 MHz                                            |
| STRUCTURAL RETURN LOSS                  | 26dB @1002-1218 MHz<br>30dB @5-1002MHz                | 26dB @1002-1218 MHz<br>30dB @5-1002MHz                |
| CENTER CONDUCTOR MATERIAL               | Copper-clad Aluminium                                 | Copper-clad Aluminium                                 |
| DIELECTRIC MATERIAL                     | Foam PE                                               | Foam PE                                               |
| JACKET MATERIAL                         | Black Fire Retardant PE / UV Protection               | Black PE / UV Protection                              |
| OUTER CONDUCTOR MATERIAL                | Aluminium                                             | Aluminium                                             |
| MINIMUM BEND RADIUS, BONDED             | 101.6 m                                               | 177.8 m                                               |
| PULLING TENSION, MAXIMUM                | 99.79 kg                                              | 204.117 kg                                            |
| PACKAGING TYPE                          | REEL                                                  | REEL                                                  |
| WEIGHT, GROSS                           | 17.42 kg/m                                            | 40.094 kg/m                                           |



### RE-RG6CCS30 TRISHIELD

### RE-RG6CCS30 TRISHIELD MESSENGER

|                               |                      |                       |                       |
|-------------------------------|----------------------|-----------------------|-----------------------|
| CONDUCTOR                     | Material:            | Copper Clad Steel     | Copper Clad Steel     |
|                               | Nominal Diameter:    | 1.02 ± 0.02 mm        | 1.02 ± 0.02 mm        |
|                               | Conductivity:        | 24%                   | 24%                   |
| INSULATION                    | Material:            | Foamed PE             | Foamed PE             |
|                               | Nominal Diameter:    | 4.57 ± 0.10 mm        | 4.57 ± 0.10 mm        |
| SHIELDING                     | Material:            | Bonded Aluminium Foil | Bonded Aluminium Foil |
|                               | Coverage:            | 120%                  | 120%                  |
| BRAIDING                      | Material:            | Aluminium Wires       | Aluminium Wires       |
|                               | Number of wires:     | 64 * 0.16 mm          | 64 * 0.16 mm          |
|                               | Coverage:            | 60%                   | 60%                   |
| SHIELDING                     | Material:            | Al / PET / Al Foil    | Al / PET / Al Foil    |
|                               | Coverage:            | 120%                  | 120%                  |
| JACKET                        | Colour:              | White or Black        | Black                 |
|                               | Application:         | Indoor and Outdoor    | Indoor and Outdoor    |
|                               | Nominal Diameter:    | 7.05 ± 0.10 mm        | 7.05 ± 0.10 mm        |
|                               | Thickness of jacket: | 0.80 ± 0.10 mm        | 0.80 ± 0.10 mm        |
| MESSENGER                     | Material:            | -                     | Steel                 |
|                               | Nominal Diameter:    | -                     | 1.30 ± 0.01           |
| IMPEDANCE                     |                      | 75 ± 3 Ω              | 75 ± 3 Ω              |
| CAPACITANCE                   |                      | 53 ± 2 pF/m           | 53 ± 2 pF/m           |
| VELOCITY                      |                      | 85%                   | 85%                   |
| INNER CONDUCTOR DC RESISTANCE |                      | < 95.78 Ω / km        | < 95.78 Ω / km        |
| OUTER CONDUCTOR DX RESISTANCE |                      | < 23.22 Ω / km        | < 23.22 Ω / km        |

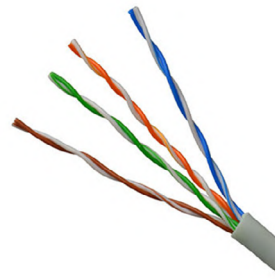


**RE-RG11CCS90**  
CABLE COAXIAL RG-11 AL 90%



**RE-TTCH-RG690-BV-WH**  
RG-6/90% DUALSHIELD

|                               |                             |                       |                            |
|-------------------------------|-----------------------------|-----------------------|----------------------------|
| CONDUCTOR                     | <b>Material:</b>            | Copper Clad Steel     | Copper Clad Steel (18 AWG) |
|                               | <b>Nominal Diameter:</b>    | 1.63 ± 0.01 mm        | 1.02 ± 0.01 mm             |
|                               | <b>Conductivity:</b>        | 24%                   | 21%                        |
| INSULATION                    | <b>Material:</b>            | Foamed PE             | Foamed PE                  |
|                               | <b>Nominal Diameter:</b>    | 7.11 ± 0.10 mm        | 4.57 ± 0.10 mm             |
| SHIELDING                     | <b>Material:</b>            | Bonded Aluminium Foil | Bonded Aluminium Foil      |
|                               | <b>Coverage:</b>            | 18%                   | 18%                        |
| BRAIDING                      | <b>Material:</b>            | Aluminium Wires       | Aluminium Wires            |
|                               | <b>Number of wires:</b>     | 168 * 0.16 mm         | 8 * 16 * 0.12 mm           |
|                               | <b>Coverage:</b>            | 90%                   | 90%                        |
| JACKET                        | <b>Material:</b>            | PVC / UV Protection   | PVC / UV Protection        |
|                               | <b>Colour:</b>              | Black                 | White or Black             |
|                               | <b>Application:</b>         | Indoor and Outdoor    | Indoor and Outdoor         |
|                               | <b>Nominal Diameter:</b>    | 10.16 ± 0.10 mm       | 6.9 ± 0.10 mm              |
|                               | <b>Thickness of jacket:</b> | 1.0 ± 0.10 mm         | 0.80 ± 0.10 mm             |
| PACKAGE                       | <b>Length:</b>              | -                     | 305 meters / wooden spool  |
|                               | <b>Wooden Spool Size:</b>   | -                     | 32 cm x 25 cm x 10 cm      |
| IMPEDANCE                     |                             | 75 ± 3 Ω              | 75 ± 3 Ω                   |
| CAPACITANCE                   |                             | 53 ± 2 pF/m           | 53 ± 2 pF/m                |
| VELOCITY                      |                             | 82%                   | 85%                        |
| INNER CONDUCTOR DC RESISTANCE |                             | < 36 Ω / km           | < 100.5 Ω / km             |
| OUTER CONDUCTOR DX RESISTANCE |                             | < 21 Ω / km           | < 32 Ω / km                |



**RE-UTPCAT5E24305W**  
UTP CAT5e

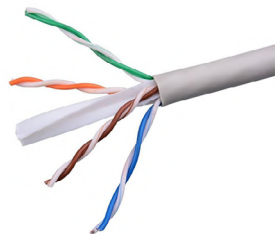
|                            |                                      |                         |
|----------------------------|--------------------------------------|-------------------------|
| PHYSICAL CHARACTERISTICS   | Nr. of Conductor Pairs:              | 4                       |
|                            | Size:                                | 25 AWG                  |
|                            | Stranding:                           | 1/0.47 ± 0.008mm        |
|                            | Conductor material:                  | Bare Copper             |
|                            | Shield material:                     | NO                      |
|                            | Rip Cord:                            | YES                     |
|                            | Insulation Overall Diameter.:        | 0.95 ± 0.02mm           |
|                            | Insulation Avg. Thickness:           | 0.225 ± 0.02mm          |
|                            | Insulation Material:                 | HDPE                    |
|                            | Outer Jacket:                        | PVC W001-G White        |
|                            | O. J. Avg. Wall thickness:           | 0.55 ± 0.02mm           |
|                            | Outer Jacket Nom. O. D.:             | 5.2 ± 0.2mm             |
|                            | Pair 1                               | BLUE: Blue/White        |
|                            | Pair 2                               | ORANGE: Orange/White    |
|                            | Pair 3                               | GREEN: Green/White      |
|                            | Pair 4                               | BROWN: Brown/White      |
| COLOUR CODE                | Temp. rating (installation):         | -20°C to +70°C          |
|                            | Temp. rating (operating):            | -20°C to +70°C          |
|                            | Min. Ben radius:                     | Eight times the outer   |
|                            | Max. Pulling force:                  | 25 lbs                  |
|                            | Tensile strength (pre-aging):        | >= 13.8 Mbpa            |
|                            | Elongation (pre-aging):              | >= 100%                 |
|                            | Aging condition:                     | 100°C * 168 hours       |
|                            | After aging:                         | >= 85% unaged           |
|                            |                                      | >= 85% unaged           |
|                            |                                      |                         |
| MECHANICAL CHARACTERISTICS | Rated Temperature/Voltage:           | 2000V/KM                |
|                            | Max. Conductor DC res. @20°C:        | 9.5Ω / 100 meters       |
|                            | Max. DC res. Unbalanced @20°C:       | 5%                      |
|                            | Max. Pair-Pair GND Capacit. Unb.:    | 330pF/100 meters        |
|                            | Characteristic Impedance (1~100 MHz) | 100 ± 10Ω               |
|                            | Mutual Capacitance:                  | 5.6 nF /100 meters      |
|                            | Maximum Delay Skew:                  | 45ns /100 meters        |
|                            |                                      |                         |
|                            |                                      |                         |
|                            |                                      |                         |
| ELECTRICAL CHARACTERISTICS |                                      |                         |
|                            |                                      |                         |
| PACKAGING                  |                                      | 305m in CARTON BOX      |
|                            |                                      | WHITE                   |
| CABLE MARKING              |                                      | As per customer request |



### RE-UTPCAT5E24305WLSZH

UTP CAT5e

|                                                         |                                  |                                  |
|---------------------------------------------------------|----------------------------------|----------------------------------|
| CONDUCTOR                                               | <b>Material:</b>                 | <b>Solid Bare Copper</b>         |
|                                                         | <b>Diameter:</b>                 | <b>0.45 ± 0.005mm</b>            |
|                                                         | <b>AWG:</b>                      | <b>1.13</b>                      |
| REFERENCE STANDARD                                      |                                  | <b>ISO/IEC 11801</b>             |
|                                                         |                                  | <b>TIA/EIA568C</b>               |
| MULTI-CONSTRUCTION                                      |                                  | <b>4 pairs (8 cores)</b>         |
| INSULATION (HDPE)                                       | <b>Thickness:</b>                | <b>AVG: 0.225mm, MIN: 0.22mm</b> |
|                                                         | <b>Insulation diameter:</b>      | <b>0.84 ± 0.02 mm</b>            |
| EACH PAIR IS TWISTED                                    | <b>Polyester:</b>                | <b>NO</b>                        |
| AND UNSHIELDED                                          | <b>Filler:</b>                   | <b>NO</b>                        |
|                                                         | <b>AL/PET:</b>                   | <b>NO</b>                        |
|                                                         | <b>Drain Wire:</b>               | <b>NO</b>                        |
|                                                         | <b>Rip Cord:</b>                 | <b>YES</b>                       |
| JACKET (LSZH)                                           | <b>Thickness:</b>                | <b>AVG: 0.5mm, MIN: 0.45mm</b>   |
|                                                         | <b>Outer diameter:</b>           | <b>4.8 ± 0.20 mm</b>             |
|                                                         | <b>Jacket Colour:</b>            | <b>WHITE</b>                     |
| COLOUR (INSULATION C.)                                  | <b>BLUE:</b>                     | <b>White/Blue</b>                |
|                                                         | <b>ORANGE:</b>                   | <b>White/Orange</b>              |
|                                                         | <b>GREEN:</b>                    | <b>White/Green</b>               |
|                                                         | <b>BROWN:</b>                    | <b>White/Brown</b>               |
| MARKING                                                 |                                  | <b>According to customer.</b>    |
| CHARACTERISTICS                                         | <b>Max. Cond. DC res. @20°C:</b> | <b>&lt; 95 Ω/km</b>              |
|                                                         | <b>Rated temperature:</b>        | <b>75°C</b>                      |
|                                                         | <b>Rated Voltage:</b>            | <b>300V</b>                      |
|                                                         | <b>Velocity Ratio:</b>           | <b>66%</b>                       |
| PACKAGING INFORMATION:<br>(CONTACT US FOR MORE DETAILS) |                                  | <b>305m/Pull-Box</b>             |
|                                                         |                                  | <b>100m/Roll</b>                 |
|                                                         |                                  | <b>500m/Wooden reel</b>          |



**RE-UTPCAT623305W**  
UTP CAT6

|                                        |                                  |                                 |
|----------------------------------------|----------------------------------|---------------------------------|
| CONDUCTOR                              | <b>Material:</b>                 | <b>Solid Bare Copper</b>        |
|                                        | <b>Diameter:</b>                 | <b>0.52± 0.005mm</b>            |
|                                        | <b>AWG:</b>                      | <b>23</b>                       |
| REFERENCE STANDARD                     |                                  | <b>ISO/IEC 11801</b>            |
|                                        |                                  | <b>ANSI/TIA/EIA568B.2-1</b>     |
| MULTI-CONSTRUCTION                     |                                  | <b>4 pairs (8 cores)</b>        |
| INSULATION (HDPE)                      | <b>Thickness:</b>                | <b>AVG: 0.225mm, MIN: 0.5mm</b> |
|                                        | <b>Insulation diameter:</b>      | <b>0.93 ± 0.02 mm</b>           |
| EACH PAIR IS TWISTED<br>AND UNSHIELDED | <b>Polyester:</b>                | <b>NO</b>                       |
|                                        | <b>Filler:</b>                   | <b>YES</b>                      |
|                                        | <b>AL/PET:</b>                   | <b>NO</b>                       |
|                                        | <b>Drain Wire:</b>               | <b>NO</b>                       |
|                                        | <b>Rip Cord:</b>                 | <b>YES</b>                      |
| JACKET (PVC)                           | <b>Thickness:</b>                | <b>AVG: 0.55mm, MIN: 0.5mm</b>  |
|                                        | <b>Outer diameter:</b>           | <b>6.1 ± 0.20 mm</b>            |
|                                        | <b>Jacket Colour:</b>            | <b>WHITE</b>                    |
| COLOUR (INSULATION C.)                 | <b>BLUE:</b>                     | <b>White/Blue</b>               |
|                                        | <b>ORANGE:</b>                   | <b>White/Orange</b>             |
|                                        | <b>GREEN:</b>                    | <b>White/Green</b>              |
|                                        | <b>BROWN:</b>                    | <b>White/Brown</b>              |
| MARKING                                |                                  | <b>According to customer.</b>   |
| CHARACTERISTICS                        | <b>Max. Cond. DC res. @20°C:</b> | <b>&lt; 93.8 Ω/km</b>           |
|                                        | <b>Rated temperature:</b>        | <b>75°C</b>                     |
|                                        | <b>Rated Voltage:</b>            | <b>300V</b>                     |
|                                        | <b>Velocity Ratio:</b>           | <b>65%</b>                      |
| PACKAGING INFORMATION:                 |                                  |                                 |
| (CONTACT US FOR MORE DETAILS)          |                                  | <b>305m/Pull-Box</b>            |



**RE-UTPCAT727305**  
UTP CAT7

|                            |                                           |                                                                                              |
|----------------------------|-------------------------------------------|----------------------------------------------------------------------------------------------|
| DESCRIPTION                | Temp. rating installation:                | 0°C ~ 50°C                                                                                   |
|                            | Temp. rating operation:                   | -20°C ~ +60°C                                                                                |
| CONSTRUCTION               | Flaming test:                             | IEC60332-1                                                                                   |
|                            | Application:                              | FOR PATCH CABLE                                                                              |
|                            | Reference standard:                       | ISO/IEC 1180 & IEC61156-6                                                                    |
|                            | Conductor:                                | SOLID BARE COPPER                                                                            |
|                            | AWG:                                      | 26                                                                                           |
|                            | Structure:                                | 7/0.16                                                                                       |
|                            | Conductor dia. (±0.01mm):                 | 0.48 mm                                                                                      |
|                            | Insulation:                               | FMPE                                                                                         |
|                            | Avg. Thickness                            | 0.28 mm                                                                                      |
|                            | Insulation dia. (±0.01mm):                | 1.06 mm                                                                                      |
|                            | Twisted:                                  | 2C                                                                                           |
|                            | AL Foil (each pair):                      | YES                                                                                          |
|                            | Assembly:                                 | 4P                                                                                           |
|                            | Braid:                                    | TINNED COPPER                                                                                |
|                            | Single diameter:                          | 0.1 mm                                                                                       |
|                            | Coverage (%):                             | >= 40%                                                                                       |
|                            | Jacket:                                   | LSZH                                                                                         |
|                            | Avg. Thickness:                           | 0.50 mm                                                                                      |
| COLOUR                     | Min. Point Thickness:                     | 0.42 mm                                                                                      |
|                            | Outer dia. (±0.01mm):                     | 6.2 mm                                                                                       |
|                            | Jacket colour:                            | According to customer.                                                                       |
|                            | Insulation colours:                       | BLUE: Blue & White<br>ORANGE: Orange & White<br>GREEN: Green & White<br>BROWN: Brown & White |
| ELECTRICAL CHARACTERISTICS | Max. Conductor DC resistance @20°C:       | 145 Ω/KM                                                                                     |
|                            | Min. insulation resistance:               | 5000 MΩ*KM                                                                                   |
|                            | Mutual Capacitance @1KHz:                 | < 56 nF/KM                                                                                   |
|                            | Pair-to-Ground Capacitance unbalance:     | <= 160 pF/100m                                                                               |
|                            | Delay Skew:                               | 4-600MHz / ≤25                                                                               |
|                            | Resistance unbalance within a pair:       | <= 2%                                                                                        |
|                            | Min. Bending radius installation:         | 8*OD                                                                                         |
|                            | NVP:                                      | 72%                                                                                          |
| MECHANICAL CHARACTERISTICS | Min. elongation @break of the conductor:  | >= 10%                                                                                       |
|                            | Min. elongation @break of the insulation: | > 300%                                                                                       |
|                            | Min. elongation @break of the sheath:     | > 100%                                                                                       |
|                            | Tensile strength of sheath:               | > 9Mpa                                                                                       |
|                            | Aging condition:                          | 100 x 168 °C x hrs                                                                           |
|                            | After tensile Strength:                   | ≥70% of unaged                                                                               |
|                            | Aging elongation:                         | ≥70% of unaged                                                                               |

# SATELLITE DISHES



|                   | <b>GT-LH60LA</b><br>60 cm | <b>GT-LH75LA</b><br>75 cm | <b>GT-LH85LA</b><br>85 cm |
|-------------------|---------------------------|---------------------------|---------------------------|
| DIAMETER SIZE     | 600 x 650 mm              | 750 x 820 mm              | 790 x 850 mm              |
| DISH THICKNESS    | 0.5 mm ±5%                | 0.6 mm ±5%                | 0.6 mm ±5%                |
| FREQUENCY RANGE   | 10.7-13GHz                | 10.7-13 GHz               | 10.7-13 GHz               |
| LNB HOLDER        | 40 mm                     | 40 mm                     | 40 mm                     |
| GAIN AT 11.75 GHZ | 36.8 dB                   | 38.5 dB                   | 39.1 dB                   |
| ELEVATION         | 0°C - 90°C                | 0°C - 90°C                | 0°C - 90°C                |
| RAW MATERIAL      | Galvanized Steel          | Galvanized Steel          | Galvanized Steel          |
|                   | Aluminium                 | Aluminium                 | Aluminium                 |
| FINISHING         | Poly. powder coat         | Poly. powder coat         | Poly. powder coat         |



|                   | <b>GT-LH90LA</b><br>90 cm | <b>GT-LH110LA</b><br>110 cm | <b>GT-LH120LA</b><br>120 cm |
|-------------------|---------------------------|-----------------------------|-----------------------------|
| DIAMETER SIZE     | 900 x 990 mm              | 1050 x 1150 mm              | 1200 x 1300 mm              |
| DISH THICKNESS    | 0.7 mm ±5%                | 0.6 mm ±5%                  | 0.8 mm ±5%                  |
| FREQUENCY RANGE   | 10.7-13GHz                | 10.7-13 GHz                 | 10.7-13 GHz                 |
| LNB HOLDER        | 40 mm                     | 40 mm                       | 40 mm                       |
| GAIN AT 11.75 GHZ | 40.9 dB                   | 41.5 dB                     | 43 dB                       |
| ELEVATION         | 0°C - 90°C                | 0°C - 90°C                  | 0°C - 90°C                  |
| RAW MATERIAL      | Galvanized Steel          | Galvanized Steel            | Galvanized Steel            |
|                   | Aluminium                 | Aluminium                   | Aluminium                   |
| FINISHING         | Poly. powder coat         | Poly. powder coat           | Poly. powder coat           |



| PAGE | REFERENCE                                                        | PCS./BOX | EAN CODE     |
|------|------------------------------------------------------------------|----------|--------------|
|      | <b>LNB</b>                                                       |          |              |
|      | <b>GT-SAT LNBs</b>                                               |          |              |
| 3    | GT-SLRC1                                                         | 100      | 543001615561 |
| 3    | GT-TL1                                                           | 100      | 543001615578 |
| 3    | GT-QDL1                                                          | 50       | 543001615585 |
| 4    | GT-QTL1                                                          | 50       | 543001615608 |
| 4    | GT-QTM40                                                         | 50       | 543001615639 |
| 4    | GT-OCL1                                                          | 30       | 543001615592 |
|      | <b>RELOOK LNB</b>                                                |          |              |
| 5    | RE-MINI S                                                        | 72       | 543001615783 |
|      | <b>ACCESSORIES</b>                                               |          |              |
| 7    | GT-AGC1                                                          | 1        | 543001613581 |
| 7    | GT-AGCAMP-2                                                      | 1        | 543001613581 |
| 7    | GT-INLS20                                                        | 1        | 543001613581 |
| 8    | GT-PSU12-1A                                                      | 1        | -            |
| 9    | GT-PSU12-1.5A                                                    | 1        | -            |
| 10   | GT-PSU-2A                                                        | 1        | -            |
| 11   | RE-RJ45C                                                         | 5000     | -            |
| 11   | GT-FSCOM7                                                        | -        | -            |
| 11   | GT-FCOM7                                                         | -        | -            |
| 11   | GT-SP                                                            | -        | -            |
| 11   | GT-SP21                                                          | 300      | 543001615301 |
| 11   | GT-SP41                                                          | 300      | 543001615325 |
| 12   | GT-SBSW24                                                        | 1        | -            |
| 12   | GT-SBSW28                                                        | 1        | -            |
| 13   | GT-SBSW34                                                        | 1        | -            |
| 14   | RE-CRJ45                                                         | 340      | -            |
| 14   | RE-CPCRJ11                                                       | 500      | -            |
| 14   | RE-RJ45CAT6A                                                     | 340      | -            |
| 14   | RE-RJ45CAT6                                                      | 340      | -            |
| 14   | RE-3RCA15                                                        | 250      | -            |
| 14   | RE-HDMI20                                                        | 250      | -            |
| 15   | <b>CABLES</b>                                                    |          |              |
|      | FOR ALL DETAILS AND PACKAGING INFORMATION,<br>PLEASE CONTACT US. |          |              |
| 24   | <b>SATELLITE DISHES</b>                                          |          |              |
|      | FOR ALL DETAILS AND PACKAGING INFORMATION,<br>PLEASE CONTACT US. |          |              |





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