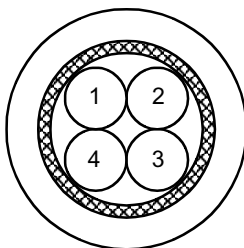


Brand-Rex

4PR24AWG CAT5e S-FTP

Our Ref: GPS-MOD



PRIMARY

Conductor: 24 AWG solid bare copper.
Insulation: Polyolefin.
Diameter: 1.07mm nominal.

PAIR: 2) of the above primaries.

CABLE CONSTRUCTION: 4) of the above pairs (Items 1-4).
Binder: Wrapped with polyester tape, 100% coverage.
Tape screen: Aluminised polyester tape, 100% coverage.
Braid screen: 0.127mm tinned copper, 49% nominal coverage.
Sheath: BLACK irradiation cross-linked halogen free elastomer
Diameter: 7.10mm nominal.

Note: Sheath material complies with and is approved to Def Stan 61-12 (Part 31)

| | | | |
|---------------------|-----------------------|-------------|--------|
| COLOUR CODE: | Pair 1 - WHITE/BLUE | paired with | BLUE |
| | Pair 2 - WHITE/ORANGE | " " | ORANGE |
| | Pair 3 - WHITE/GREEN | " " | GREEN |
| | Pair 4 - WHITE/BROWN | " " | BROWN |

PHYSICAL PARAMETERS:

Minimum bending radius: 8 x Cable OD (During Installation)
4 x Cable OD (Installed)
Temperature Range: 0°C to + 50°C (Installation)
-30°C to + 85°C (Operational)

| | | | | | | | |
|---|----|----------|----------------|--|----------|-------------|----------|
| 1 | IW | 10/97 | Update | Drawn by | Date | Checked | Approved |
| 2 | IW | 15/10/98 | Braid coverage | Tony Saunders | 04/11/94 | | |
| 3 | JW | 14/11/06 | Reference | Brand-Rex Viewfield Industrial Estate, Glenrothes, Fife, Scotland KY6 2RS Telephone 01592 772124 Fax 01592 775314 | | | |
| | | | | | | | |
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| | | | | Revision Level : 2 | | Page 1 of 2 | |

Brand-Rex

4PR24AWG CAT5e S-FTP


Our Ref: GPS-MOD

ELECTRICAL CHARACTERISTICS @ 20°C

| | |
|----------------------------|-----------------------------------|
| D.C. Resistance: | 93.8 Ohms/km maximum |
| D.C. Loop Resistance: | 192 Ohms/km maximum |
| Resistance Unbalance: | 2% maximum |
| Dielectric Strength: | 1500V RMS or 2500V DC / 2 secs |
| Characteristic Impedance: | 100 ohms \pm 5ohms @ 100MHz |
| | <u>Typical</u> <u>Max. Spec</u> |
| Transfer Impedance @ 1MHz: | 8mOhms/m 50mOhms/m |
| @ 10MHz: | 3.5mOhms/m 100mOhms/m |
| Mutual Capacitance @ 1kHz: | 55.8nF/km maximum |
| Capacitance Unbalance: | 3280pF/km maximum pair to ground |
| Velocity of Propagation: | 0.6c minimum, 0.7c typical |
| NEXT from 0.772 - 100mhz: | NEXT(dB) = 152 - 15log10(freq.Hz) |
| Minimum SRL 1.0 - 20mhz: | 23dB |
| 20.0 - 100mhz: | SRL (dB) = 23 - 10log(f/20) |
| Attenuation, NEXT & SRL: | Per Table 1 |

TABLE 1

| Frequency (MHz) | Max. Attenuation (dB/100m) | | NEXT (dB/100m) | | SRL (dB@100MHz) | |
|--------------------|-------------------------------|------------|-------------------|------------|--------------------|------------|
| | MAX SPEC | NOM ACT | MIN SPEC | NOM ACT | MIN SPEC | NOM ACT |
| 0.772 | 1.8 | 1.74 | 64 | 70 | -- | -- |
| 1.0 | 2.1 | 1.91 | 62 | 67 | 23 | 25 |
| 4.0 | 4.3 | 3.71 | 53 | 58 | 23 | 25 |
| 10.0 | 6.6 | 5.88 | 47 | 53 | 23 | 25 |
| 16.0 | 8.2 | 7.57 | 44 | 51 | 23 | 25 |
| 20.0 | 9.2 | 8.50 | 42 | 47 | 23 | 25 |
| 31.25 | 11.8 | 10.63 | 40 | 45 | 21 | 25 |
| 62.5 | 17.1 | 15.09 | 35 | 40 | 18 | 25 |
| 100 | 22.0 | 19.30 | 32 | 36 | 16 | 25 |
| 155 | | 24.55 | | 34 | | 25 |
| 200 | | 28.83 | | 32 | | 25 |

| | | | | | | | |
|--|----|----------|-----------------------|--|----------|-------------|----------|
| 1 | IW | 10/97 | Updated | Drawn by | Date | Checked | Approved |
| 2 | IW | 15/10/98 | Page 1 braid coverage | Tony Saunders | 04/11/94 | | |
| | | | |  | | | |
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| | | | | Drawing Number : 4925 | | | |
| | | | | Revision Level : 2 | | Page 2 of 2 | |