# *SPECTRUM HD® ADVANCED*

12/13/2006 REV. 1.1

*6 RG59 (25 AWG) SOLID BC + 22 AWG 1 PAIR STRANDED TC SHIELDED + CATEGORY 5E*

**PART NUMBER:** RB6SDS+22/1P+CAT5E

**DESCRIPTION:** *6 RG59 25 AWG 1 CONDUCTOR SOLID BARE COPPER, FOAM HDPE DIELECTRIC, BONDED FOIL TAPE, 95% TC FRENCH BRAID SHIELD, BUNDLED WITH 1 22 AWG 1 PAIR SHIELDED AND 1 CAT5E, OVERALL PAPER TAPE, INDIVIDUAL AND OVERALL PVC JACKET. SWEPT TO 4.5GHz, UL/NEC: CM*

**PHYSICAL CHARACTERISTICS (EACH COAX):**

| | |
|---|---|
| **TEMPERATURE RATING:** | -40 TO +75 DEG. C |
| **CONDUCTOR MATERIAL & DIA.:** | 25 AWG SOLID BARE COPPER, .0179" |
| **INSULATION MATERIAL & DIA.:** | FOAM HDPE, .074" NOM. |
| **SHIELD TYPE & % COVERAGE:** | FOIL TAPE, 100%<br>TINNED COPPER FRENCH BRAID, 95% |
| **JACKET MATERIAL:** | FLAME RESISTANT PVC |
| **COLOR CODE (EACH COAX):** | RED,GREEN, BLUE, BLACK, YELLOW, WHITE |
| **JACKET COLOR:** | BLACK |
| **RIPCORD:** | YES |
| **OUTSIDE DIAMETER (EACH COAX/OVERALL):** | .122"/.520" AVG. |
| **FOOTAGE MARKERS:** | ASCENDING/DESCENDING IN FEET |
| **MAXIMUM PULLING TENSION:** | 240 LBS |
| **MNIMUM BEND RADIUS (EACH COAX):** | .90" |
| **MNIMUM BEND RADIUS (OVERALL):** | 7.0" |
| **PACKAGING:** | REEL |
| **SHIPPING WEIGHT:** | 140 LBS./1000 FT. |

**ELECTRICAL CHARACTERISTICS (EACH COAX):**

| | |
|---|---|
| **MAX. OPERATING VOLTAGE:** | 300V |
| **IMPEDANCE:** | 75 OHM |
| **NOM. INDUCTANCE:** | .19 UH/FT |
| **NOM. CAPACITANCE CONDUCTOR TO SHIELD:** | 17.5 pf/FT |
| **NOM. VELOCITY OF PROPAGATION:** | 81% |
| **NOM. DELAY:** | 1.34 NS/FT |
| **NOM. CONDUCTOR DC RESISTANCE @ 20 DEG.C:** | 32.5 OHMS/1000 FT. |
| **NOM. SHIELD DC RESISTANCE @ 20 DEG. C:** | 8.5 OHMS/1000FT. |
| **RETURN LOSS:** | 15 db MIN, 5-3000MHz |

**NOM. ATTENUATION:**

| MHZ | DB/100 FT. | MHZ | DB/100 FT. |
|---|---|---|---|
| 1 | 0.57 | 700 | 12.99 |
| 5 | 1.25 | 1000 | 15.97 |
| 50 | 3.52 | 1500 | 20.35 |
| 100 | 4.72 | 2000 | 24.40 |
| 450 | 10.13 | 3000 | 32.02 |

**UL CRITERIA:**

| | |
|---|---|
| **UL TYPE OR STYLE:** | UL/NEC: CM |
| **FLAME RESISTANCE:** | UL1581 VERTICAL TRAY |

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**PHYSICAL CHARACTERISTICS (22/1P):**

| | |
|---|---|
| **TEMPERATURE RATING:** | -20 TO +80 DEG. C |
| **CONDUCTOR/PAIR COUNT:** | 2 CONDUCTOR, 1 PAIR TWISTED |
| **CONDUCTOR MATERIAL:** | TINNED COPPER |
| **GAUGE & STRANDING:** | 22 AWG, STRANDED |

**ELECTRICAL CHARACTERISTICS (22/1P):**

| | |
|---|---|
| **MAX. OPERATING VOLTAGE:** | 300V |
| **MAX. CONTINUOUS CURRENT PER CONDUCTOR @ 25 DEG. C:** | 2.35 AMPS/CONDUCTOR |
| **NOM. CAPACITANCE CONDUCTOR TO SHIELD** | |

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*6 RG59 (25 AWG) SOLID BC + 22 AWG 1 PAIR STRANDED TC SHIELDED + CATEGORY 5E*

| | |
|---|---|
| **COLOR CODE:** | BLACK, RED |
| **INSULATION MATERIAL:** | PVC |
| **INSULATION THICKNESS:** | .013" |
| **JACKET MATERIAL & THICKNESS:** | PVC, .032" |
| **JACKET COLOR:** | BLACK |
| **RIPCORD:** | YES |
| **OUTSIDE DIAMETER:** | .172" |
| **SHIELD:** | AL FOIL/POLYESTER TAPE |
| **DRAIN:** | 22 AWG, 7X30, TINNED COPPER |

| | |
|---|---|
| **@ 1 KHZ:** | 50 pF/ft |
| **NOM. CAPACITANCE BETWEEN CONDUCTORS OF PAIR @ 1 KHZ:** | 35 pF/ft |
| **NOM. INDUCTANCE OF PAIRS:** | 0.2 uH/ft |
| **NOM. CONDUCTOR DC RESISTANCE @ 20 DEG. C:** | 16.5 OHMS/1000 FT. |
| **NOM. OUTER SHIELD DC RESISTANCE @20 DEG. C:** | 10.5 OHMS/1000 FT. |

**UL CRITERIA:**

| | |
|---|---|
| **UL TYPE OR STYLE:** | CEC/C(UL) CMG |
| **FLAME RESISTANCE:** | FT4 |

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**PHYSICAL CHARACTERISTICS (CAT5E):**

| | |
|---|---|
| **TEMPERATURE RATING:** | -20 TO +80 DEG. C |
| **CONDUCTOR/PAIR COUNT:** | 8 CONDUCTORS, 4 TWISTED PAIRS |
| **CONDUCTOR MATERIAL:** | BARE COPPER |
| **GAUGE & STRANDING:** | 24 AWG, SOLID |
| **COLOR CODE:** | WHITE/BLUE STRIPE, BLUE |
| | WHITE/ORANGE STRIPE, ORANGE |
| | WHITE/GREEN STRIPE, GREEN |
| | WHITE/BROWN STRIPE, BROWN |
| **INSULATION MATERIAL:** | POLYOLEFIN |
| **INSULATION THICKNESS:** | .008" |
| **JACKET MATERIAL & THICKNESS:** | PVC, .19" |
| **JACKET COLOR:** | BLUE |
| **RIPCORD:** | YES |
| **OUTSIDE DIAMETER:** | .20" |

**UL CRITERIA:**

| | |
|---|---|
| **UL TYPE OR STYLE:** | CEC/C(UL) CM |
| **FLAME RESISTANCE:** | UL1581 VERTICAL TRAY |

**ELECTRICAL CHARACTERISTICS (CAT5E):**

| | |
|---|---|
| **MAX. OPERATING VOLTAGE:** | 300V |
| **NOM. MUTUAL CAPACITANCE @ 1 KHZ:** | 15 pF/FT. |
| **MAX CAPACITANCE UNBALANCE (pF/100M):** | 66 pF/100M |
| **NOM. VELOCITY OF PROPAGATION:** | 70% |
| **MAX. DELAY (ns/100M):** | 510 ns/100M |
| **MAX. DELAY SKEW (ns/100M):** | 25 ns/100M |
| **MAX. CONDUCTOR DC RESISTANCE @ 20 DEG.C:** | 9 OHMS/100M |
| **MAX. DCR UNBALANCE @ 20 DEG. C:** | 3% |

**RETURN LOSS:** 20-25 dB MIN.,1-99.9 MHZ/17.0-20.0 DB MIN.,100-350 MHZ

**NOM. ATTENUATION:**

| MHZ | DB/100 M | MHZ | DB/100 M |
|---|---|---|---|
| 1 | 2.0 | 62.5 | 16.8 |
| 4 | 4.0 | 100 | 21.7 |
| 8 | 5.7 | 155 | 27.7 |
| 10 | 6.4 | 200 | 32.0 |
| 16 | 8.1 | 250 | 36.4 |
| 20 | 9.2 | 300 | 40.5 |
| 25 | 10.3 | 310 | 41.3 |
| 31.25 | 11.6 | 350 | 44.3 |

**NOTES:**

1. Footage markers printed every two feet.
2. Foil shield is bonded to the dielectric.
3. Paper tissue between overall jacket and bundled components.
4. Suitable for indoor and some outdoor applications.
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