

## BD70 Series

### Ku-band block downconverters in IP67 boxes for outside mounting

| INPUT SPECIFICATION                          |   |                  |
|--|---|------------------|
| 1. Frequency range:                          | 10.70 to 12.75GHz (check model table)   |                  |
| 2. Connector:                                | N-type  |                  |
| 3. Impedance:                                | 50Ω   |                  |
| 4. Return loss:                              | ≥18dB typical   |                  |
| OUTPUT SPECIFICATION                         |   |                  |
| 5. Frequency range:                          | 950 to 2,000MHz (check model table)   |                  |
| 6. Connector:                                | N-type  |                  |
| 7. Impedance:                                | 50Ω   |                  |
| 8. Return loss:                              | ≥15dB typical   |                  |
| 9. 1dB compression point:                    | +10dBm  |                  |
| TRANSFER CHARACTERISTICS                     |   |                  |
| 10. Gain:                                    | 25dB (±1dB), fixed  |                  |
| 11. Gain ripple: over any 40MHz transponder: | ≤1dB p.t.p.   |                  |
| over 500/1000MHz output band:                | ≤3dB p.t.p  |                  |
| 12. External reference:                      | 10MHz, multiplexed with L-band signal, DC power and alarm signals, level -5dBm to +10dBm              |                  |
| 13. Local Oscillator:                        | 9.75, 10.0, 10.75 or 11.3GHz (check model table)  |                  |
| 14. Noise figure:                            | <20dB   |                  |
| Spurii                                       |   |                  |
| 15. From 950 to 2,000MHz:                    | ≤-60dBm   |                  |
| PHASE NOISE                                  |   |                  |
|  | Typical   | IESS308/309 mask |
| 16. 10Hz:                                    | <-40dBc/Hz  | -30dBc/Hz        |
| 17. 100Hz:                                   | <-65dBc/Hz  | -60dBc/Hz        |
| 18. 1kHz:                                    | <-75dBc/Hz  | -70dBc/Hz        |
| 19. 10kHz:                                   | <-85dBc/Hz  | -80dBc/Hz        |
| 20. 100kHz:                                  | <-95dBc/Hz  | -90dBc/Hz        |
| 21. 1MHz:                                    | <-100dBc/Hz   | -90dBc/Hz        |
| 22. Mains related:                           | <-50dBc/Hz  | -35dBc/Hz        |
| MISCELLANEOUS                                |   |                  |
| 23. Power supply:                            | +17V DC, 500mA, via L-band output, multiplexed with L-band signal, 10MHz reference and alarm signals. |                  |
| 24. Mechanical:                              | Metal box, IP67 rating, 220x145x55mm  |                  |
| 25. Temperature:                             | Operating: -20° to +50°C  |                  |
|  | Storage: -50° to +70°C  |                  |
| 26. Compatibility:                           | Compatible with D350 Series of downconverters   |                  |

#### MODEL TABLE

| Model                      | Input band, GHz                       | Output band, MHz                  | LO, GHz            |
|----------------------------|---------------------------------------|-----------------------------------|--------------------|
| <b>BD70</b>                | 10.95 to 11.70                        | 950 to 1,700                      | 10.00              |
| <b>BD71</b>                | 11.70 to 12.25                        | 950 to 1,500                      | 10.75              |
| <b>BD72</b>                | 12.25 to 12.75                        | 950 to 1,450                      | 11.30              |
| <b>BD73</b> <sup>(1)</sup> | 10.70 to 11.70 plus<br>11.70 to 12.75 | 950 to 1,950 plus<br>950 to 2,000 | 9.75 plus<br>10.75 |
| <b>BD76</b> <sup>(2)</sup> | 10.70 to 11.70 plus<br>11.70 to 12.75 | 950 to 1,950 plus<br>950 to 2,000 | 9.75 plus<br>10.75 |
| <b>BD74</b>                | 11.7 to 12.75                         | 950 to 2,000                      | 10.75              |

<sup>(1)</sup> Dual band, single input, single output, active band selectable via control cable.

<sup>(2)</sup> Dual band, single output, dual output, both bands simultaneously operational.

**Note:** Specification subject to change at any time without prior notice.