

BD60 Series
X-band block downconverters
in IP67 boxes for outside mounting

INPUT SPECIFICATION

1. Frequency range:	7.25 to 7.75GHz
2. Connector:	N-type
3. Impedance:	50Ω
4. Return loss:	≥18dB typical

OUTPUT SPECIFICATION

5. Frequency range:	950 to 1,750MHz (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
Optional internal reference:	An internal high stability reference may be supplied, with no provision for external locking
Internal frequency stability, 0°C to 50°C: (short term)	2 x 10 ⁻⁷ Option 1: 10 ⁻⁷ Option 2: 10 ⁻⁸ Option 3: 3 x 10 ⁻⁹
13. Local Oscillator:	6.3 or 8.7GHz (check model table)
14. Noise figure:	<20dB

Spurii

15. From 950 to 1,450MHz:	≤-60dBm
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PHASE NOISE

	Typical
16. 10Hz:	<-45dBc/Hz
17. 100Hz:	<-70dBc/Hz
18. 1kHz:	<-80dBc/Hz
19. 10kHz:	<-85dBc/Hz
20. 100kHz:	<-95dBc/Hz
21. 1MHz:	<-110dBc/Hz
22. Mains related:	<-60dBc

MISCELLANEOUS

23. Power supply:	+17V to +24V 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
BD65	7.25 to 7.75	950 to 1,450	6.3
BD66	7.25 to 7.75	950 to 1,450	8.7

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