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BD50 Series

C-band block downconverters in IP67 boxes for outside mounting

INPUT SPECIFICATION		
1. Frequency range:		3.4 to 4.2GHz (check model table)
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
13. Local Oscillator:		5.15GHz
14. Noise figure:		<20dB
Spurii		
15. From 950 to 1,750MHz:		≤-60dBm
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	Intput band, GHz	Output band, MHz	LO, GHz
BD50	3.625 to 4.2	950 to 1,525	5.15
BD51	3.4 to 4.2	950 to 1,750	5.15

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

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BD500 Series

C-band Block downconverters in 1U 19'' chassis

INPUT SPECIFICATION		
1. Frequency range:	3.4 to 4.8GHz (check model table)	
2. Connector:	SMA	N-type
3. Impedance:	50Ω	
4. Return loss:	≥18dB	
OUTPUT SPECIFICATION		
5. Frequency range:	950 to 2,000MHz (check model table)	
6. Connector:	SMA	N-type
7. Impedance:	50Ω	
8. Return loss:	≥15dB typical	
9. 1dB compression point:	+10dBm (typ. +15dBm)	
TRANSFER CHARACTERISTICS		
10. Gain:	25dB (±1dB), fixed **Option S**: 10 to 30dB adjustable via remote interface	
11. Gain ripple: over any 40MHz transponder:	≤0.5 p.t.p.	
over 500/1,000MHz output band:	≤1.5dB p.t.p	
12. Gain stability, 0°C to 50°C:	±1dB	
13. Gain slope:	≤0.02dB/MHz	
LOCAL OSCILLATOR		
14. External reference:	10MHz, 0dBm nominal	
15. Local Oscillator:	5.15GHz (simple, spectrum invert models) 10.75GHz and 13.05GHz (non-inverting models) 5.75GHz (BD584M)	
16. Noise figure:	<16dB	
Spurii		
17. Image rejection:	>75dB	
18. In-band spurii (at 0dBm output):	<-60dBc	
19. Out of band Spurii:	≤-60dBm	
PHASE NOISE	Typical	
20. 10Hz:	<-50dBc/Hz	
21. 100Hz:	<-70dBc/Hz	
22. 1kHz:	<-85dBc/Hz	
23. 10kHz:	<-105dBc/Hz	
24. 100kHz:	<-110dBc/Hz	
25. 1MHz:	<-116dBc/Hz	
26. Mains related:	<-60dBc	
MISCELLANEOUS		
27. Power supply:	115V/230V ±10%, 50/60Hz ±10%, 20VA	
28. Mechanical:	1U 19'' frame, 400mm deep	
29. Temperature: Operating:	-20° to +50°C	
Storage:	-50° to +70°C	
30. Summary alarm:	NO and NC dry relay contacts via rear mounted connector	
31. Summary alarm indication:	Through front panel LED	
32. Remote interface:	None **Option S**: Ethernet SNMP & web browser	

MODEL TABLE

	Input Frequency	Output Frequency	Local Oscillator
BD501	3.625 - 4.2GHz	950 - 1,525MHz	5.15GHz
BD511	3.4 - 4.2GHz	950 - 1,750MHz	5.15GHz
BD591N	3.4 - 4.2GHz	950 - 1,750MHz	10.75GHz + 13.05GHz
BD584M	4.5 - 4.8GHz	950 - 1,250MHz	5.75GHz
BD595	3.4 - 4.2GHz plus 4.5 - 4.8GHz	950 - 1,750MHz plus 950 - 1,250MHz	5.15GHz plus 5.75GHz

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