

D350 Series L-band Downconverters

INPUT SPECIFICATION	Options
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1. Frequency range:	Check model table		
2. Connector:	N-type		SMA
3. Impedance:	50Ω		
4. Return loss:	≥16dB typical		≥20dB ⁽¹⁾

OUTPUT SPECIFICATION

5. Frequency range:	Check model table		
6. Connector:	BNC		
7. Impedance:	50Ω		
8. Return loss:	≥16dB typical		≥20dB ⁽²⁾
9. 1dB compression point:	+10dBm		
10. Third order intercept::	+20dBm		

TRANSFER CHARACTERISTICS

11. Gain:	20 to 40dB, adjustable in 0.1dB steps ⁽⁴⁾		
12. Gain ripple: over ±20MHz:	≤1dB p.t.p.		
	over input band:	≤3dB p.t.p	
13. Group delay distortion: over ±5MHz	<2ns		
	over ±20MHz	<5ns	
14. Gain stability, 0°C to 50°C:	±1dB		
15. Frequency stability	0°C to +50°C:	5 x 10 ⁻⁸ - High Stability option	2 x 10 ⁻⁸
	At constant temperature over 24h		5 x 10 ⁻⁹
	Aging per year:		5 x 10 ⁻⁷
16. External reference:	10MHz, 0dBm		5MHz, 0dBm
17. Synthesiser step size:	1kHz		
18. Noise figure (full gain):	<17dB		

Spurii

19. Image rejection:	>60dB	(>75dB typ.)	(3)
20. In-band spurii (at 0dBm output):	<-60dBc	(<-60dBc typ.)	(3)

PHASE NOISE

21. 10Hz:	<-60dBc/Hz	(4)
22. 100Hz:	<-75dBc/Hz	(4)
23. 1kHz:	<-80dBc/Hz	(4)
24. 10kHz:	<-85dBc/Hz	(4)
25. 100kHz:	<-95dBc/Hz	(4)
26. 1MHz:	<-110dBc/Hz	(4)
27. Mains related:	<-60dBc	

MISCELLANEOUS

28. Power supply:	115V/230V ±10% 50/60Hz ±10%, 30VA		
29. Mechanical:	1U 19" frame, 400mm deep		
30. Temperature:	Operating:	0° to 50°C	
	Storage:	-40° to 85°C	
31. Relative humidity:	Operating:	0 to 90%	
	Storage:	0 to 95%	
32. Summary alarm:	NO and NC dry relay contacts via rear mounted connector		
33. Summary alarm indication:	Front panel LED		
34. Remote control:	<ul style="list-style-type: none"> ● RS232 or RS422/RS485, connector D-type 9P F ● Serial emulation over TCP/IP, connector RJ45 ● SNMP and HTTP over TCP/IP Ethernet, connector RJ45 		

⁽¹⁾ Gain decreases by 3dB, noise figure increases by 3dB.

⁽²⁾ Gain and output compression point decrease by 3dB.

⁽³⁾ Spurious levels only guaranteed at all frequencies at maximum gain.

⁽⁴⁾ These are typical values subject to ±3dB spec and measurement uncertainties.

MODEL TABLE

Input Frequency (MHz)	Output frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
950 - 1,750	D350	D355	D370
950 - 2,150	D351	D356	D371
D320-1	Input: 950 – 1,700MHz		Output: 250 ± 20MHz