

D350 Series L-band Downconverters

INPUT SPECIFICATION		Options
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:	● 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	