

D2512 and D2522 series

Ka-band to 1.2GHz Downconverter

INPUT SPECIFICATION		Options
1. Frequency range:	D2512: any 1GHz slot within 20 to 30GHz D2522: any 2GHz slot within 20 to 30GHz	
2. Connector:	K-type	
3. Impedance:	50Ω	
4. Return loss:	≥18dB	
OUTPUT SPECIFICATION		
5. Frequency range:	1.2GHz ± 300MHz ⁽³⁾	
6. Connector:	SMA	
7. Impedance:	50Ω	
8. Return loss:	≥15dB	≥20dB ⁽¹⁾
9. 1dB compression point:	+10dBm	
10. Third order intercept:	+20dBm	
TRANSFER CHARACTERISTICS		
11. Gain:	20 to 40dB, adjustable in 0.1dB steps	
12. Gain ripple:	over ±300MHz: ≤1.5dB p.t.p. over ±40MHz: ≤1dB p.t.p. over input band: ≤4dB p.t.p.	
13. Group delay distortion:	over ±5MHz <2ns ptp over ±20MHz <5ns ptp over ±300MHz <10ns ptp	
14. Gain stability, 0°C to 50°C:	±1dB	
15. Frequency stability, 0°C to 50°C:	10 ⁻⁸	
16. External reference:	10MHz, 0dBm	5MHz, 0dBm
17. Synthesiser step size:	1kHz	
18. Noise figure (full gain):	<17dB	
Spurii		
19. Image rejection:	>55dB	(>75dB typ.) ⁽²⁾
20. In-band spurii (at 0dBm output):	<-55dBc	(<-60dBc typ.) ⁽²⁾
PHASE NOISE		
21. 10Hz:	<-38dBc/Hz	
22. 100Hz:	<-67dBc/Hz	
23. 1kHz:	<-77dBc/Hz	
24. 10kHz:	<-83dBc/Hz	
25. 100kHz:	<-93dBc/Hz	
26. 1MHz:	<-105dBc/Hz	
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⁾ Output compression point and overall gain decrease by 3dB.

⁽²⁾ Spurious levels only guaranteed at all frequencies at maximum gain.

⁽³⁾ Specifications do not apply when input frequencies fall beyond lower and upper band limits. Input frequency should be selected such as all of output band translates to a frequency segment wholly within the input band