

## D550 Series C-band Downconverters

INPUT SPECIFICATION	Options
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1. Frequency range:	3.4 to 4.8GHz (check model table)	
2. Connector:	N-type	SMA
3. Impedance:	50Ω	
4. Return loss:	≥20dB	

OUTPUT SPECIFICATION
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5. Frequency range:	70 ± 20MHz or 140 ± 40MHz (check model table)	
6. Connector:	BNC	TNC
7. Impedance:	50Ω	75Ω
8. Return loss:	≥15dB	≥20dB (*)
9. 1dB compression point:	+10dBm	
10. Third order intercept::	+20dBm	

TRANSFER CHARACTERISTICS
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11. Gain:	30 to 50dB, adjustable in 0.1dB steps	
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:	2 x 10 <sup>-7</sup>	Option 1: 10 <sup>-7</sup> Option 2: 10 <sup>-8</sup> Option 3: 3 x 10 <sup>-9</sup>
16. External reference:	10MHz, 0dBm	5MHz, 0dBm
17. Synthesiser step size:	1kHz	
18. Noise figure (full gain):	<17dB	

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

PHASE NOISE
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21. 10Hz:	<-45dBc/Hz
22. 100Hz:	<-70dBc/Hz
23. 1kHz:	<-80dBc/Hz
24. 10kHz:	<-85dBc/Hz
25. 100kHz:	<-95dBc/Hz
26. 1MHz:	<-110dBc/Hz
27. Mains related:	<-60dBc

MISCELLANEOUS
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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/RS485 serial interface

(\*) Output compression point and overall gain decrease by 3dB.

### MODEL TABLE

Input Frequency	Output frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
3.625 - 4.2GHz	D550	D555	D570
3.4 - 4.2GHz	D551	D556	D571
4.5 - 4.8GHz	D553	D558	D573