

## U550 Series C-band Upconverters

INPUT SPECIFICATION		Options
1. Frequency range:	70 ± 20MHz or 140 ± 40MHz (check model table)	
2. Connector:	BNC	TNC
3. Impedance:	50Ω	75Ω
4. Return loss:	≥15dB	≥20dB (*)
OUTPUT SPECIFICATION		
5. Frequency range:	5.725 to 6.725GHz (check model table)	
6. Connector:	N-type	SMA
7. Impedance:	50Ω	
8. Return loss:	≥20dB	
9. 1dB compression point:	+10dBm	
10. Third order intercept::	+20dBm	
11. Output mute:	Front panel, parallel and serial interface >90dB at max gain, >60dB at min gain	
TRANSFER CHARACTERISTICS		
12. Gain:	0 to 30dB, adjustable in 0.1dB steps	
13. Gain ripple:	over ±20MHz: ≤1dB p.t.p. over output band: ≤3dB p.t.p	
14. Group delay distortion:	over ±5MHz <2ns over ±20MHz <5ns	
15. Gain stability, 0°C to 50°C:	±1dB	
16. 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>
17. External reference:	10MHz, 0dBm	5MHz, 0dBm
18. Synthesiser step size:	1kHz	
19. Noise figure (full gain):	<20dB	
Spurii		
20. Image rejection:	>75dB	
21. In-band spurii (at 0dBm output):	<-60dBc	
PHASE NOISE		
22. 10Hz:	<-45dBc/Hz	
23. 100Hz:	<-70dBc/Hz	
24. 1kHz:	<-80dBc/Hz	
25. 10kHz:	<-85dBc/Hz	
26. 100kHz:	<-95dBc/Hz	
27. 1MHz:	<-110dBc/Hz	
28. Mains related:	<-60dBc	
MISCELLANEOUS		
29. Power supply:	115V/230V ±10% 50/60Hz ±10%, 30VA	
30. Mechanical:	1U 19" frame, 400mm deep	
31. Temperature:	Operating: 0° to 50°C Storage: -40° to 85°C	
32. Relative humidity:	Operating: 0 to 90% Storage: 0 to 95%	
33. Summary alarm:	NO and NC dry relay contacts via rear mounted connector	
34. Summary alarm indication:	Front panel LED	
35. Remote control:	RS232/RS485 serial interface	

(\*) Noise figure increases by 3dB, overall gain decreases by 3dB.

### MODEL TABLE

Output Frequency	Input frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
5.85 - 6.425GHz	U550	U555	U570
5.85 - 6.725GHz	U551	U556	U571
5.725 - 6.725GHz	U552	U557	U572