

## U230 series of UHF upconverters

INPUT SPECIFICATION		Options
1. Frequency range:	70 ± 20MHz	
2. Connector:	BNC	
3. Impedance:	50Ω	75Ω
4. Return loss:	≥15dB	≥20dB (*)
OUTPUT SPECIFICATION		
5. Frequency range:	200 to 900MHz (please see model table)	
6. Connector:	N-type	SMA
7. Impedance:	50Ω	
8. Return loss:	≥15dB	
9. 1dB compression point:	+10dBm	
10. Third order intercept::	+20dBm	
TRANSFER CHARACTERISTICS		
11. Gain:	0 to 30dB, 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:	0°C to +50°C: < 1 x 10 <sup>-7</sup> At constant temperature over 24 hr: < 1 x 10 <sup>-8</sup>	
16. Synthesiser step size:	1kHz	
17. Noise figure (full gain):	<20dB	
Spurii		
18. Image rejection:	>50dB	
19. In-band spurii (at 0dBm output):	<-60dBc	
PHASE NOISE		
20. 10Hz:	<-50dBc/Hz	
21. 100Hz:	<-70dBc/Hz	
22. 1kHz:	<-80dBc/Hz	
23. 10kHz:	<-85dBc/Hz	
24. 100kHz:	<-95dBc/Hz	
25. 1MHz:	<-110dBc/Hz	
26. Mains related:	<-50dBc	
MISCELLANEOUS		
27. Power supply:	115V/230V ±10% 50/60Hz ±10%, 30VA	
28. Mechanical:	1U 19" frame, 400mm deep	
29. Temperature:	Operating: 0° to 50°C Storage: -40° to 85°C	
30. Relative humidity:	Operating: 0 to 90% Storage: 0 to 95%	
31. Summary alarm:	NO and NC dry relay contacts via rear mounted connector	
32. Summary alarm indication:	Front panel LED	
33. Remote control:	<ul style="list-style-type: none"> <li>• RS232 or RS422/RS485, connector D-type 9P F</li> <li>• SNMP and HTTP over TCP/IP Ethernet, connector RJ45</li> </ul>	

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

## MODEL TABLE

Model	Input	Output
U230	70 ± 20MHz	380 to 740MHz
U230-2	70 ± 20MHz	400 to 500MHz
U230-1S	70 ± 20MHz	380 to 740MHz (a)
U231	70 ± 20MHz	240 to 320MHz

(a) All RF, IF and 10MHz reference connectors are square flange with 4 screw fitting



N-type square flange



BNC

