

## U850 Series

### DBS-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:	17.3 to 18.4GHz (check model table)
6. Connector:	N-type <span style="float: right;">SMA</span>
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:	10 <sup>-7</sup> <span style="float: right;">Option 2: 10<sup>-8</sup> Option 3: 3 x 10<sup>-9</sup></span>
17. External reference:	10MHz, 0dBm <span style="float: right;">5MHz, 0dBm</span>
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:	<ul style="list-style-type: none"> <li>• RS232 or RS422/RS485, connector D-type 9P F</li> <li>• Serial emulation over TCP/IP, connector RJ45</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

Output Frequency	Input frequency and bandwidth		
	70 ± 20MHz	140 ± 40MHz	70 ± 20MHz, 140 ± 20MHz and ±40MHz
17.3 - 18.4GHz	U851	U861	U881
17.3 - 18.1GHz	U855	U865	U885