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	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:		10^{-7}	Option 2: 10^{-8} Option 3: 3×10^{-9}
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 or RS422/RS485, connector D-type 9P F ● Serial emulation over TCP/IP, connector RJ45 ● SNMP and HTTP over TCP/IP Ethernet, connector RJ45	

(*) 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