

BU80 Series

DBS-band block upconverters in IP67 boxes for outside mounting

INPUT SPECIFICATION

1. Frequency range:	1,000MHz to 2,100MHz (check model table)
2. Connector:	N-type
3. Impedance:	50Ω
4. Return loss:	≥15dB typical

OUTPUT SPECIFICATION

5. Frequency range:	17.3GHz to 18.4GHz (check model table)
6. Connector:	N-type
7. Impedance:	50Ω
8. Return loss:	≥18dB
9. 1dB compression point:	+10dBm

TRANSFER CHARACTERISTICS

10. Gain:	12dB (±1dB), fixed	25dB (±1dB), fixed
11. Gain stability: from -25°C to +50°C: over 24 hours, constant temp.	≤ 3dB ≤ 0.4dB	
12. Gain ripple: over any 40MHz transponder: over 500/750MHz output band:	≤1dB p.t.p. ≤3dB p.t.p	
13. External reference:	10MHz, multiplexed with L-band signal, DC power and alarm signals, level -5dBm to +10dBm	
14. Local Oscillator:	16.3GHz	
15. Noise figure:	<20dB	

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16. From 0 to 15GHz (at 0dBm output):	≤ -60dBm
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PHASE NOISE

	Typical	IESS308/309 mask
17. 10Hz:	-45dBc/Hz	-30dBc/Hz
18. 100Hz:	-65dBc/Hz	-60dBc/Hz
19. 1kHz:	-75dBc/Hz	-70dBc/Hz
20. 10kHz:	-85dBc/Hz	-80dBc/Hz
21. 100kHz:	-95dBc/Hz	-90dBc/Hz
22. 1MHz:	-100dBc/Hz	-90dBc/Hz
23. Mains related:	-50dBc/Hz	-35dBc/Hz

MISCELLANEOUS

24. Power supply:	+17V DC, 500mA, via L-band input, multiplexed with L-band signal, 10MHz reference and alarm signals.	
25. Mechanical:	Metal box, IP67 rating, 220x145x55mm	
26. Temperature:	Operating:	-20° to +50°C
	Storage:	-50° to +70°C
27. Compatibility:	Compatible with U350 Series of upconverters	

MODEL TABLE

Model	Input band, MHz	Output band, GHz	LO, GHz
BU81	1,000 to 2,100	17.30 to 18.40	16.30
BU82	950 to 1,750	17.30 to 18.10	16.35
BU83	950 to 1,750	17.60 to 18.40	16.65
BU85	1,000 to 1,800	16.30 to 18.10	16.30

Note: Specification subject to change at any time without prior notice.

**DBS-band block upconverters in 1U 19" chassis
with independent PSU and 10MHz reference**

INPUT SPECIFICATION

1. Frequency range:	950MHz to 2,150MHz (check model table)	
2. Connector:	SMA	N-type
3. Impedance:	50Ω	
4. Return loss:	≥15dB typical	

OUTPUT SPECIFICATION

5. Frequency range:	17.3GHz to 18.4GHz (check model table)	
6. Connector:	SMA	N-type
7. Impedance:	50Ω	
8. Return loss:	≥18dB	
9. 1dB compression point:	+10dBm	

TRANSFER CHARACTERISTICS

10. Gain:	12dB (±1dB), fixed	25dB (±1dB), fixed
11. Gain stability: from -25°C to +50°C: over 24 hours, constant temp.	≤ 3dB ≤ 0.4dB	
12. Gain ripple: over any 40MHz transponder: over 500/750MHz output band:	≤1dB p.t.p. ≤3dB p.t.p	
13. External reference:	10MHz, 0dBm nominal	
14. Local Oscillator: Stability, short term, 0°C to +50°C	16.3GHz 2 x 10 ⁻⁸	
15. Noise figure:	<20dB	

Spurii

16. From 0 to 15GHz (at 0dBm output):	≤-60dBm
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PHASE NOISE	Max.	Typical	IESS308/309 mask
17. 10Hz:	<-40dBc/Hz	-45dBc/Hz	-30dBc/Hz
18. 100Hz:	<-65dBc/Hz	-70dBc/Hz	-60dBc/Hz
19. 1kHz:	<-75dBc/Hz	-90dBc/Hz	-70dBc/Hz
20. 10kHz:	<-85dBc/Hz	-100dBc/Hz	-80dBc/Hz
21. 100kHz:	<-95dBc/Hz	-100dBc/Hz	-90dBc/Hz
22. 1MHz:	<-100dBc/Hz	-115dBc/Hz	-70dBc/Hz
23. Mains related:	<-50dBc/Hz	-60dBc/Hz	-35dBc/Hz

MISCELLANEOUS

24. Power supply:	115V/230V ±10%, 50/60Hz ±10%, 40VA.
25. Mechanical:	1U 19" frame, 400mm deep
26. Temperature:	Operating: -20° to +50°C Storage: -50° to +70°C
27. Summary alarm:	NO and NC dry relay contacts via rear mounted connector
28. Summary alarm indication:	Through front panel LED
29. Remote interface:	None
30. Compatibility:	Compatible with U350 Series of upconverters

MODEL TABLE

Model	Input band, MHz	Output band, GHz	LO, GHz
BU811	1,000 to 2,100	17.3 to 18.4	16.30
BU851	1,000 to 1,800	17.3 to 18.1	16.30
BU852	950 to 1,750	17.3 to 18.1	16.35
BU853	950 to 1,750	17.6 to 18.4	16.65

Note: Specification subject to change at any time without prior notice.