

# Full Coverage Ku-band 1.5W BUC | Block Upconverter

## MODEL No. NJT8301 series

### < Features >

#### \* RF Frequency Line-up of Full Coverage Ku-band

- Universal Ku-band: 13.75 to 14.5 GHz
- Standard Ku-band: 14.0 to 14.5 GHz

#### \* Super High Efficiency & Low Distortion

- P1dB: +31 dBm min. over temperature
- Power Consumption: 12 W
- ACPR: -26 dBc @ Pout = +31 dBm

#### \* Smallest Size & Lightest Weight (\*)

- Dimension: 91.55 (L) x 68 (W) x 42.5 (H) mm
- Weight: 350 g

(\*) As 1.5W Ku-band BUCs for VSAT released in June 2011

#### \* Leading Technology Equipped

#### \* RoHS Compliance



### < Line-Up >

Model No.	RF Frequency	Local Frequency	IF Frequency	Output Power @ P1dB	IF Connector	Power Supply
NJT8301UN	13.75 to 14.5 GHz (Universal Ku-band)	12.80 GHz	950 to 1,700 MHz	1.5W Linear (+31 dBm min.)	N-type	+12 to +30 V DC Power
NJT8301UF					F-type	
NJT8301N	14.0 to 14.5 GHz (Standard Ku-band)	13.05 GHz	950 to 1,450 MHz		N-type	
NJT8301F					F-type	

### < Specifications >

Item	Specifications
Output Interface	Waveguide, WR75 with Groove
Input Interface	N-type, female (50 ohm) [Model No.: NJT8302N / 02UN] F-type, female (75 ohm) [Model No.: NJT8302F / 02UF]
Output Power @ 1dB G.C.P.	+31 dBm min. over temperature
Linear Gain	55 dB typ., 48 dB min.
ACPR	-26 dBc typ. @ Pout = +31 dBm
Requirement for External Reference	[Frequency] 10 MHz (sine-wave)
	[Input Power] -5 to +5 dBm @ Input port
	[Phase Noise] -125 dBc/Hz max. @ 100 Hz -135 dBc/Hz max. @ 1 kHz -140 dBc/Hz max. @ 10 kHz
L.O. Phase Noise	-60 dBc/Hz max. @ 100 Hz -70 dBc/Hz max. @ 1 kHz -80 dBc/Hz max. @ 10 kHz -90 dBc/Hz max. @ 100 kHz -100 dBc/Hz max. @ 1 MHz
Receive Band Noise Density	-156 dBm/Hz max. @ 10.95 to 12.75 GHz
Input V.S.W.R.	2 : 1 max.
Output V.S.W.R.	2 : 1 max.
Power Requirement	DC Power, +24 V (Range: +12 to +30 V)
Power Consumption	12 W typ., 14 W max. @ Pout = +31 dBm 11 W max. @ No IF and +25 °C 2 W max. @ 10 MHz Reference Off (Mute on)
Mute	Shut off the HPA in case of L.O. unlocked or no 10 MHz reference signal
Temperature Range (ambient)	Operating: -40 to +55 °C Storage: -40 to +75 °C
Humidity	0 to 100 %
Altitude	15,000 feet [4572 m]
Dimension & Housing	91.55 (L) x 68 (W) x 42.5 (H) mm [3.60" (L) x 2.68" (W) x 1.67" (H)] without interface connector
Weight	350 g [0.77 lbs]

\*Note: The contents of this sheet are subject to change without notice.

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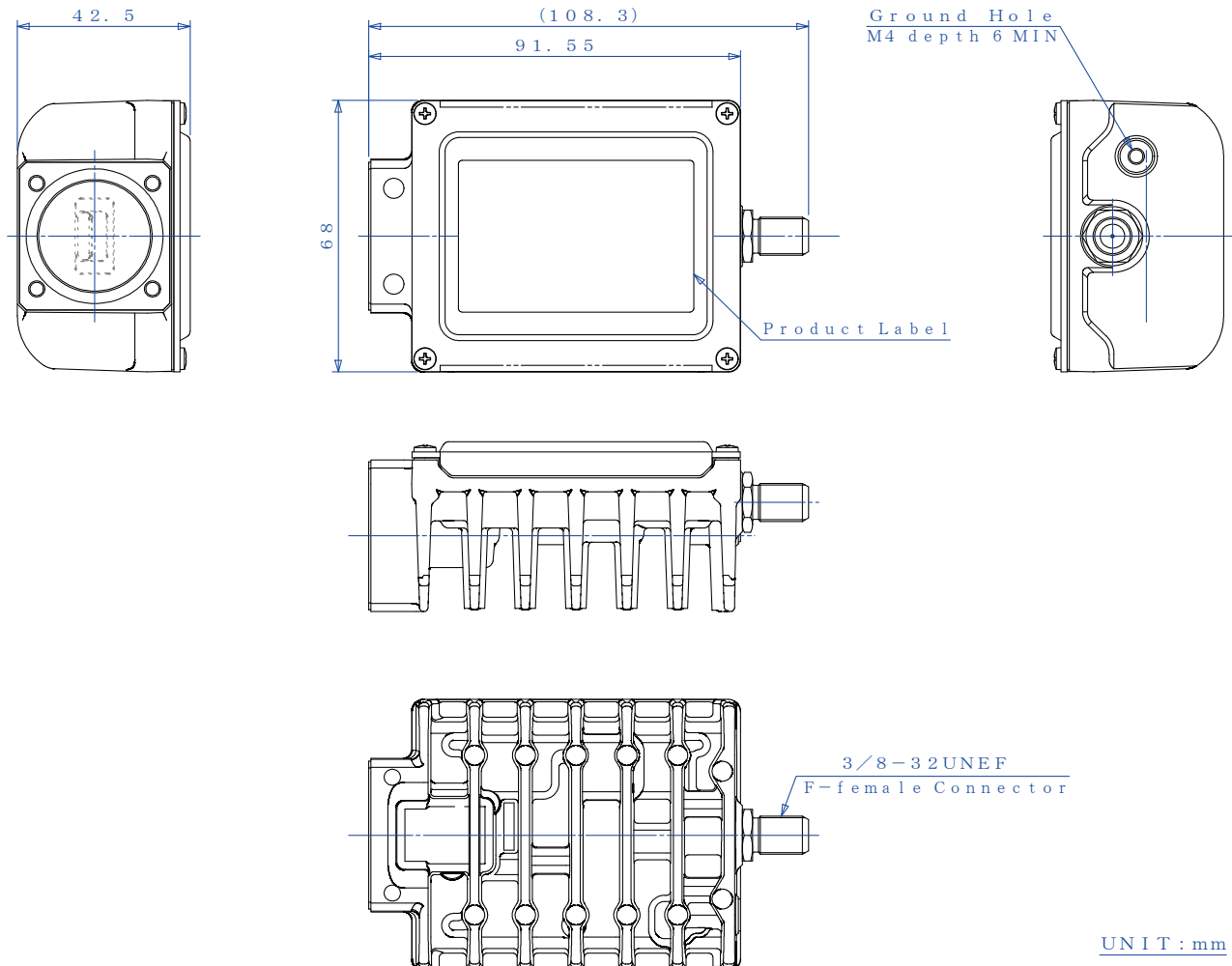
## MODEL No. NJT8301 series

### < Comparison Sheet >

Item	Current Model : NJT5115F	New Model: NJT8301UF
RF Frequency Range	14.0 - 14.5 GHz (500 MHz BW)	13.75 - 14.5 GHz (750 MHz BW)
Output Power @P1dB	+31.0 dBm min. over temp.	
Power Consumption	17 W max.	12 W typ., 14 W max. @ Pout=+31dBm
Weight	1.0 kg [2.2 lbs]	350 g max. [0.77 lbs]
Dimensions	64% Reduction (Volume comparison)	
(L)	163.4 mm [6.43"]	91.55 mm [3.6"]
(W)	100 mm [3.94"]	68 mm [2.68"]
(H)	44.5 mm [1.75"]	42.5 mm [1.67"]

### < Outline Drawing >

- F-type IF Connector -



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