

# Universal/Standard Ku-band 1.5W BUC

## MODEL No. NJT8301 series

### < Features >

#### \* RF Frequency Line-up

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

#### \* High Efficiency Output Power

- P1dB: +31.0 dBm min. over temperature
- Power Consumption: 12 W

#### \* Smaller Size & Lighter Weight

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



### < 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 (+31.0 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.: NJT8301N/UN] F-type, female (75 ohm) [Model No.: NJT8301F/UF]
Output Power @ 1 dB G.C.P.	+31 dBm min. over temperature
ACPR	-26 dBc min. @ Pout = +31 dBm
Linear Gain	55 dB nom., 48 dB min.
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 @ Pout ≤ +31 dBm	[Tx: 13.75 to 14 GHz] -156 dBm/Hz max. @10.95 to 12.25 GHz -142 dBm/Hz max. @12.25 to 12.75 GHz [Tx: 14 to 14.5 GHz] -156 dBm/Hz max. @10.95 to 12.75 GHz
Input V.S.W.R.	2.0 : 1 max.
Output V.S.W.R.	2.0 : 1 max.
Power Requirement	+12 to +30 V DC Power
Power Consumption	12 W typ., 14 W max. @ Pout = +31 dBm / 11 W max. @ No IF and +25°C 2W max. @ 10 MHz Reference Off (Mute on)
Mute	Shut off the HPA in case of L.O. unlocked or no 10 MHz reference signal
LED Indicator	GREEN: L.O. locked / RED: L.O. unlocked or no 10 MHz reference signal
Temperature Range (ambient)	-40 to +55 °C (operating), -40 to +75 °C (storage)
Humidity	0 to 100 %
Altitude	15,000 feet [4572m]
Waterproof/Dustproof (IP Code)	IP 67
Dimension & Housing (without Interface Connectors)	91.55 mm (L) x 68 mm (W) x 42.5 mm (H) [3.60" (L) x 2.68" (W) x 1.67" (H)]
Weight	350g [0.77 lbs]

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

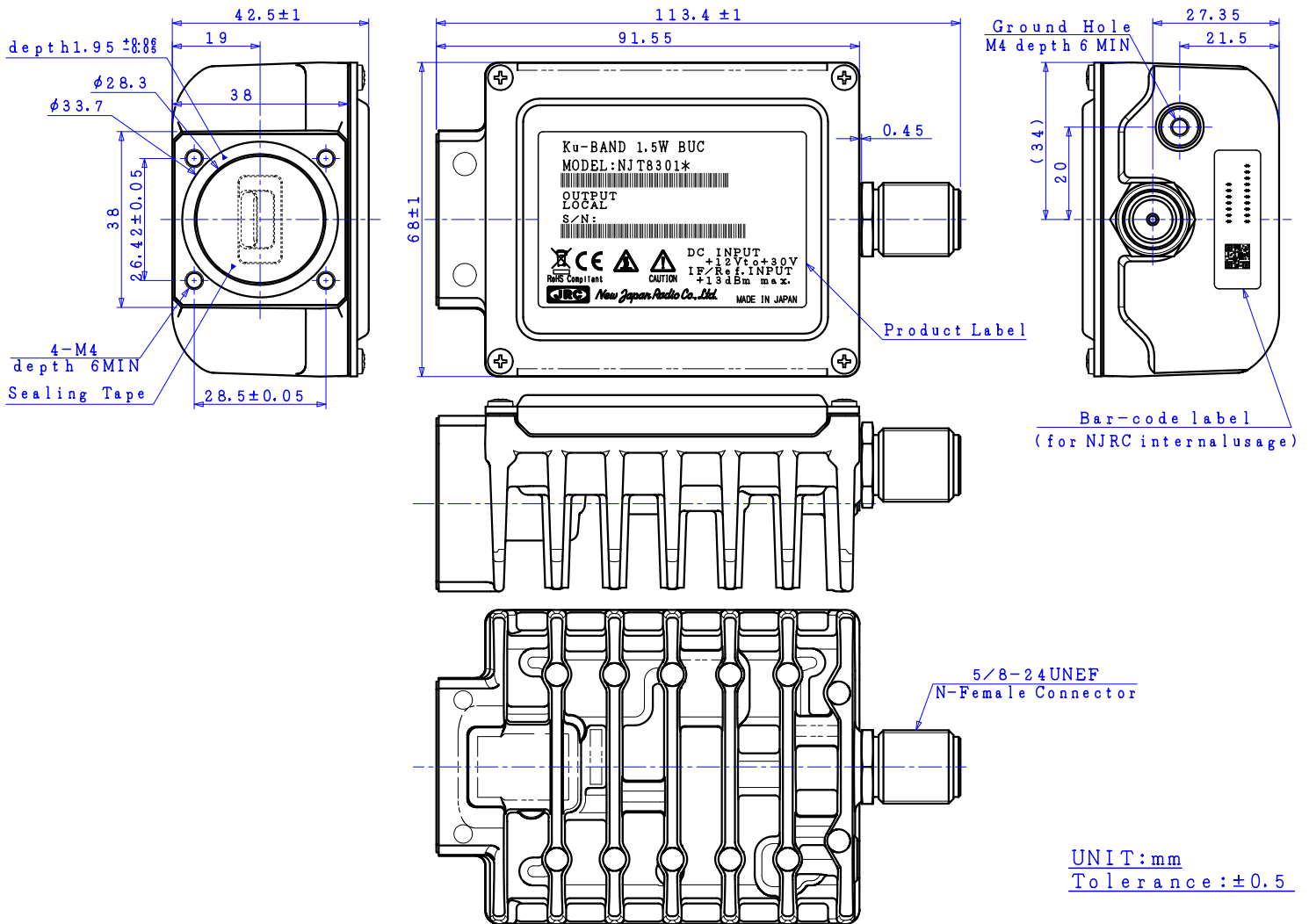
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Rev.06(May 2017) Ku 1.5W BUC\_NJT8301

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### < Outline Drawing >

### N-type, female Connector Model / DC Input: IF Connector



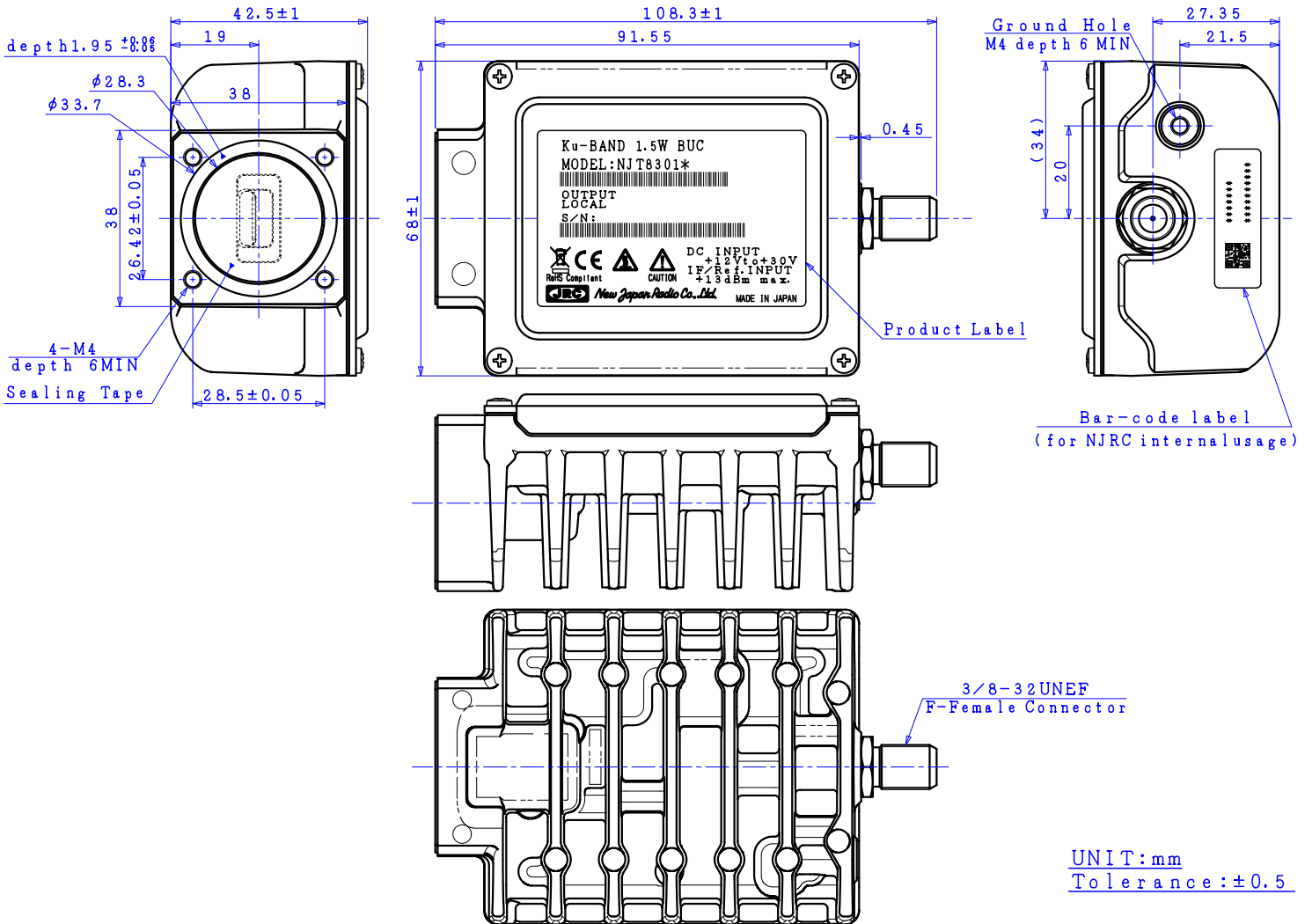
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## MODEL No. NJT8301 series

### < Outline Drawing >

#### F-type, female Connector Model / DC Input: IF Connector



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