

# Universal / Standard Ku-band 6W BUC

## MODEL No. NJT8306 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: +37.8 dBm min. over temperature
- ACPR: -30 dBc @ Pout = +37.8 dBm
- Power Consumption: 40 W

#### \* LED Indicator Equipped

- Monitoring L.O. Lock

#### \* Smaller Size & Lighter Weight

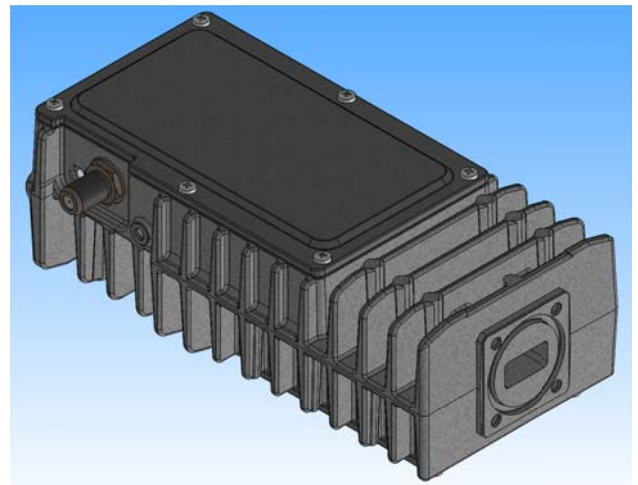
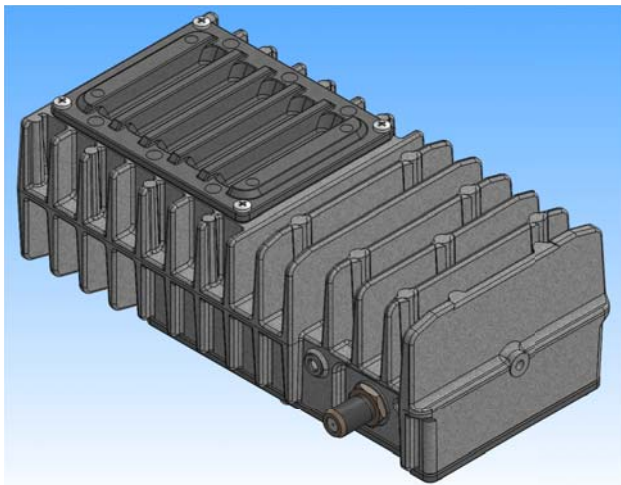
- Dimension: 174.9 (L) × 84 (W) × 59.2 (H) mm
- Weight: 1.2 kg



### < Line-Up >

Model No.	RF Frequency	Local Frequency	IF Frequency	Output Power @ P1dB	IF Connector	Power Supply	LED Indicator
NJT8306UN	13.75 to 14.50 GHz (Universal Ku-band)	12.80 GHz	950 to 1,700 MHz	6W Linear (+37.8 dBm min.)	N-type	+12 to +30 V DC Power	Equipped
NJT8306UF					F-type		
NJT8306N	14.00 to 14.50 GHz (Standard Ku-band)	13.05 GHz	950 to 1,450 MHz		N-type		
NJT8306F					F-type		

### < Outline >



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

(1/4)  
Rev.03(May 2017) Ku 6W BUC\_NJT8306

**JRC** New Japan Radio Co., Ltd.

Microwave Division

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## MODEL No. NJT8306 series

### < Specifications >

Item	Specifications	
Output Interface	Waveguide, WR75 (with Groove)	
Input Interface	N-type, female (50 ohm)	[Model No.: NJT8306N/UN]
	F-type, female (75 ohm)	[Model No.: NJT8306F/UF]
Output Power @ 1 dB G.C.P.	+37.8 dBm min. over temperature	
ACPR	-30 dBc typ., -24 dBc max. @ Pout = +37.8 dBm	
Linear Gain	62 dB nom., 56 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 ≤ +37.8 dBm	[Tx: 13.75 to 14 GHz]	-156 dBm/Hz max. @10.95 to 12.25 GHz
		-125 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.	1.3 : 1 max.	
Power Requirement	+12 to +30 V DC Power	
Power Consumption	40 W typ., 48 W max. @ Pout = +37.8 dBm	
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)	[Operating]	-40 to +65 °C (Operating Guarantee)
		-40 to +60 °C (Performance Guarantee)
	[Storage]	-40 to +75 °C
Waterproof/Dustproof (IP Code)	IP 67	
Dimension & Housing ( without Interface Connectors )	174.9 mm (L) x 84 mm (W) x 59.2 mm (H)	
	[6.89" (L) x 3.31" (W) x 2.33" (H)]	
Weight	1.2kg [2.6 lbs]	

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(2/4)  
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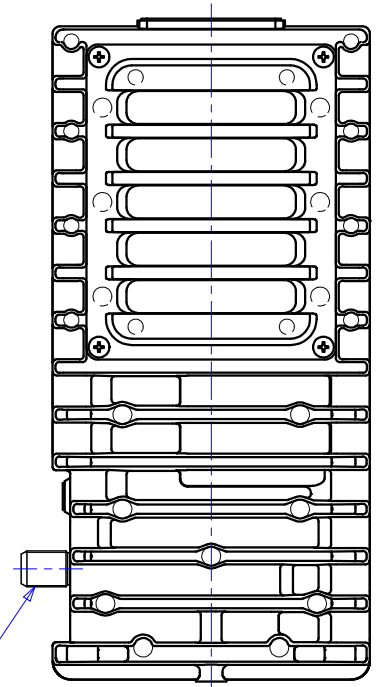
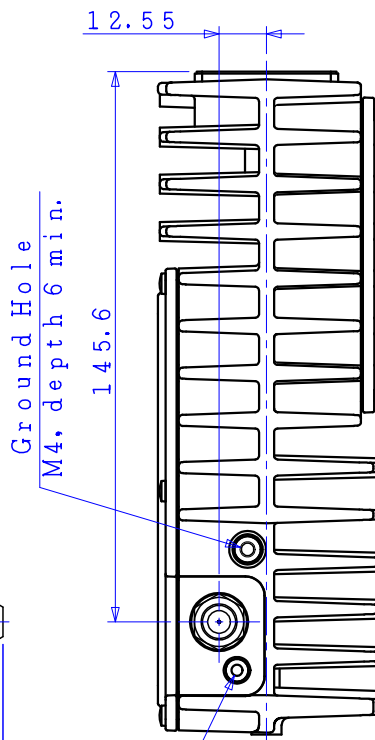
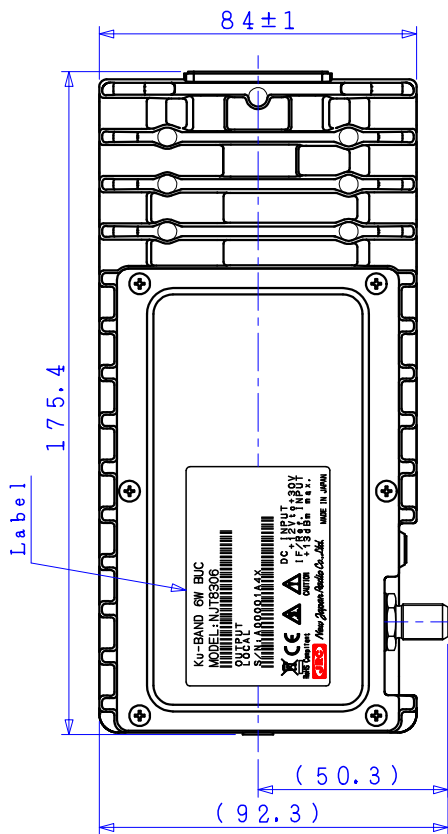
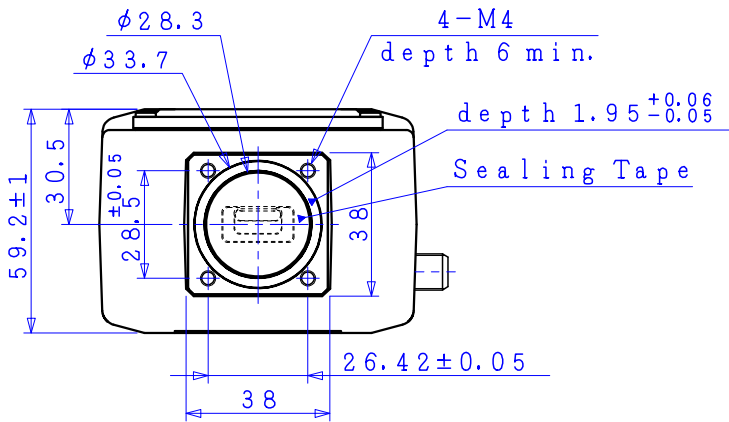
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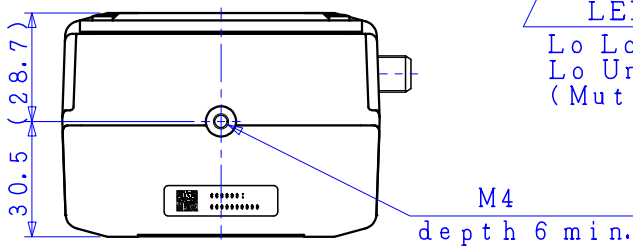
### < Outline Drawing >

#### F-type, female Connector Model



F-type Female Connector  
IF/10MHz/DC Power Input

LED Indicator  
Lo Locked : Green  
Lo Unlocked : Red  
(Mute on)



UNIT: mm

Tolerance:  $\pm 0.5$

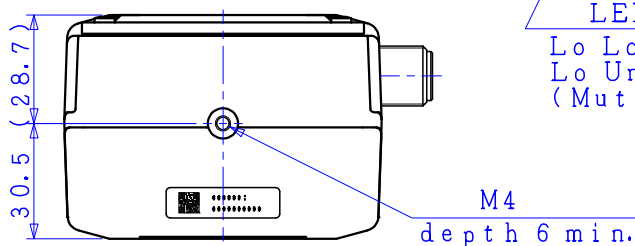
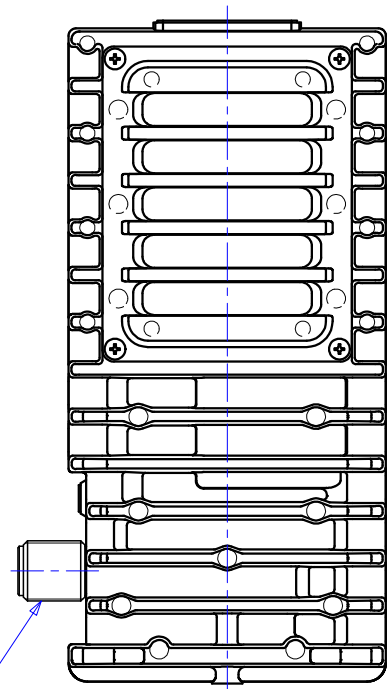
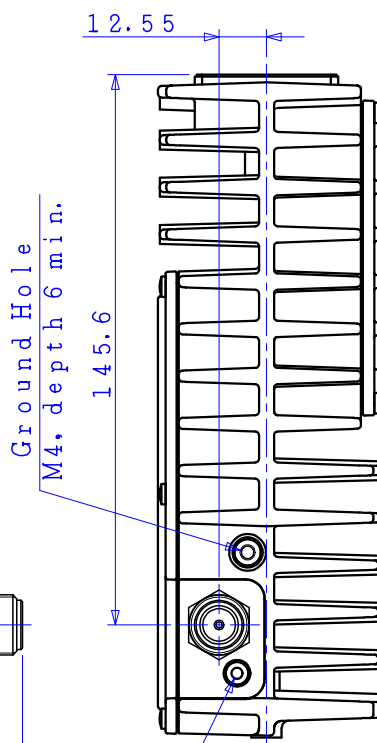
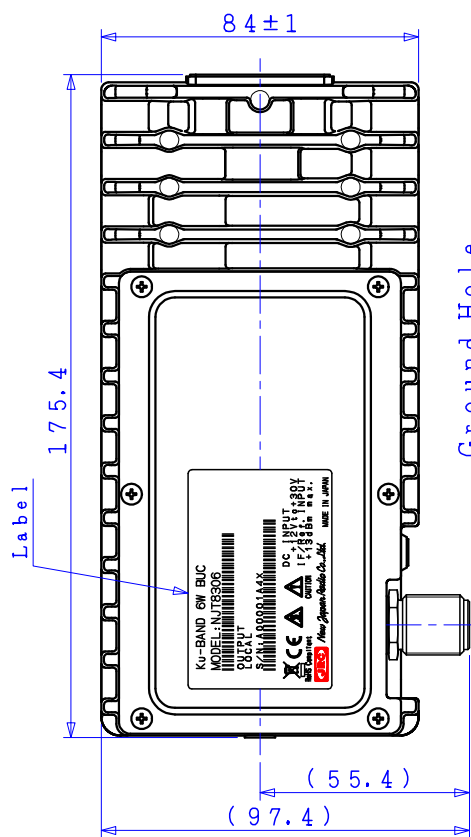
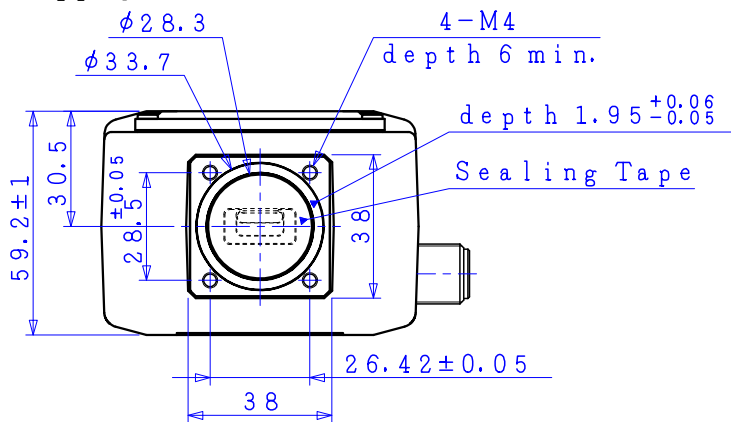
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### < Outline Drawing >

#### N-type, female Connector Model



LED Indicator  
 Lo Locked : Green  
 Lo Unlocked : Red  
 (Mute on)

UNIT: mm

Tolerance:  $\pm 0.5$

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