

# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Features >

#### \* High Temperature Operating

- Operation Guarantee Temperature Range:  
-40 to +75 degree C

#### \* 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

(8W Model)

- P1dB: +39 dBm min. over temperature
- Power Consumption: 80 W typ.
- IM3: -28 dBc @ Pout <= +36 dBm

#### \* Monitor & Control Line-up

- FSK Communication M&C
- RS-232C Interface Serial M&C

#### \* Smaller Size & Lighter Weight

- Dimension: 180 (L) x 130 (W) x 80 (H) mm
- Weight: 2.4 kg



### < Line-Up >

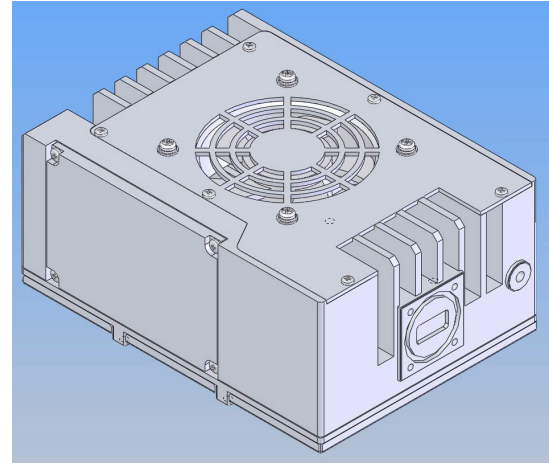
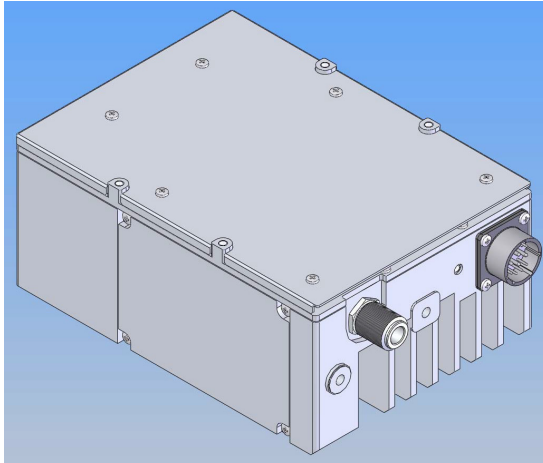
Model No.	RF Frequency	Local Frequency	IF Frequency	Output Power @ P1dB	IF Connector	Power Supply	Port for Voltage Input	M&C Option
NJT8318N	14.0 to 14.5 GHz (Standard Ku-band)	13.05 GHz	950 to 1,450 MHz	8W Linear (+39dBm min.)	N-type	+18 to +60 V DC Power	IF Connector	N/A
NJT8318F					F-type		MS Connector (IF Connector Option)	
NJT8318NM					N-type	AC Power Option		
NJT8318FM					F-type		+18 to +60 V DC Power	
NJT8318NA					N-type	IF Connector		FSK M&C
NJT8318FA					F-type		AC Power Option	
NJT8318NK					N-type	+18 to +60 V DC Power		MS Connector (IF Connector Option)
NJT8318FK					F-type		IF Connector	
NJT8318NMK					N-type	AC Power Option		IF Connector * Note 1
NJT8318FMK					F-type		+18 to +60 V DC Power	
NJT8318NMR					N-type	IF Connector		N/A
NJT8318FMR					F-type		AC Power Option	
NJT8318NMRA					N-type	+18 to +60 V DC Power		MS Connector (IF Connector Option)
NJT8318FMRA					F-type		IF Connector	
NJT8318UN	13.75 to 14.5 GHz (Universal Ku-band)	12.80 GHz	950 to 1,700 MHz	8W Linear (+39dBm min.)	N-type	+18 to +60 V DC Power		IF Connector
NJT8318UF					F-type		MS Connector (IF Connector Option)	
NJT8318UNM					N-type	AC Power Option		IF Connector * Note 1
NJT8318UFM					F-type		+18 to +60 V DC Power	MS Connector (IF Connector Option)
NJT8318UNA					N-type	IF Connector		
NJT8318UFA					F-type		AC Power Option	IF Connector * Note 1
NJT8318UNK					N-type	+18 to +60 V DC Power		
NJT8318UFK					F-type		IF Connector	
NJT8318UNMK					N-type	AC Power Option		IF Connector * Note 1
NJT8318UFMK					F-type		+18 to +60 V DC Power	
NJT8318UNMR					N-type	IF Connector		N/A
NJT8318UFMR					F-type		AC Power Option	
NJT8318UNMRA					N-type	+18 to +60 V DC Power		MS Connector (IF Connector Option)
NJT8318UFMRA					F-type		IF Connector	

\* Note1 ) Additional indoor 150W AC/DC PSU is enclosed for AC Power Option and DC Power is supplied at IF connector of BUC from AC/DC PSU via IF cable.

# Universal/Standard Ku-band 8W BUC

MODEL No. **NJT8318** series

## < Overview >



## < Specifications >

Item	Specifications
Output Power @ 1dB G.C.P. (P1dB)	+39 dBm min. over temperature
Linear Gain	65 dB nom., 59 dB min.
Gain Variation over frequency	Standard Ku-band: 5 dBp-p max. over 500 MHz / 2 dBp-p max. over 54 MHz Universal Ku-band: 5 dBp-p max. over 750 MHz / 2 dBp-p max. over 54 MHz
Gain Stability over temperature	2 dBp-p typ., 5 dBp-p max.
IM3	-28 dBc typ., -24 dBc max. @ total power $\leq$ Pout - 3dB
ACPR	-28 dBc typ. @ Pout $\leq$ Pout - 1dB
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
Input V.S.W.R.	2 : 1 max.
Output V.S.W.R.	2 : 1 max.
DC Power Requirement (1) Voltage Range (2) Power Consumption	+18 to +60 VDC  @ No IF Signal @ P1dB      65 W typ. 80 W typ., 90 W max.
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)
M&C	< FSK Communication M&C > Interface: FSK Modulation Signal via IF connector Function: Power Monitor / TX On/Off Control / Alarm ... etc < RS-232C Serial M&C > Interface: RS-232C Function: Power Monitor / TX On/Off Control / Alarm / Digital Step Attenuator ... etc
Temperature Range (ambient)	Operating: -40 to +75 C (Operation Guarantee) -40 to +55 C (Performance Guarantee) Storage: -40 to +75 C
Dimension & Housing	180 (L) x 130 (W) x 80 (H) mm [7.09" (L) x 5.12" (W) x 3.15" (H)] without interface connector and screws
Weight	2.4 kg [5.3 lbs ]

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

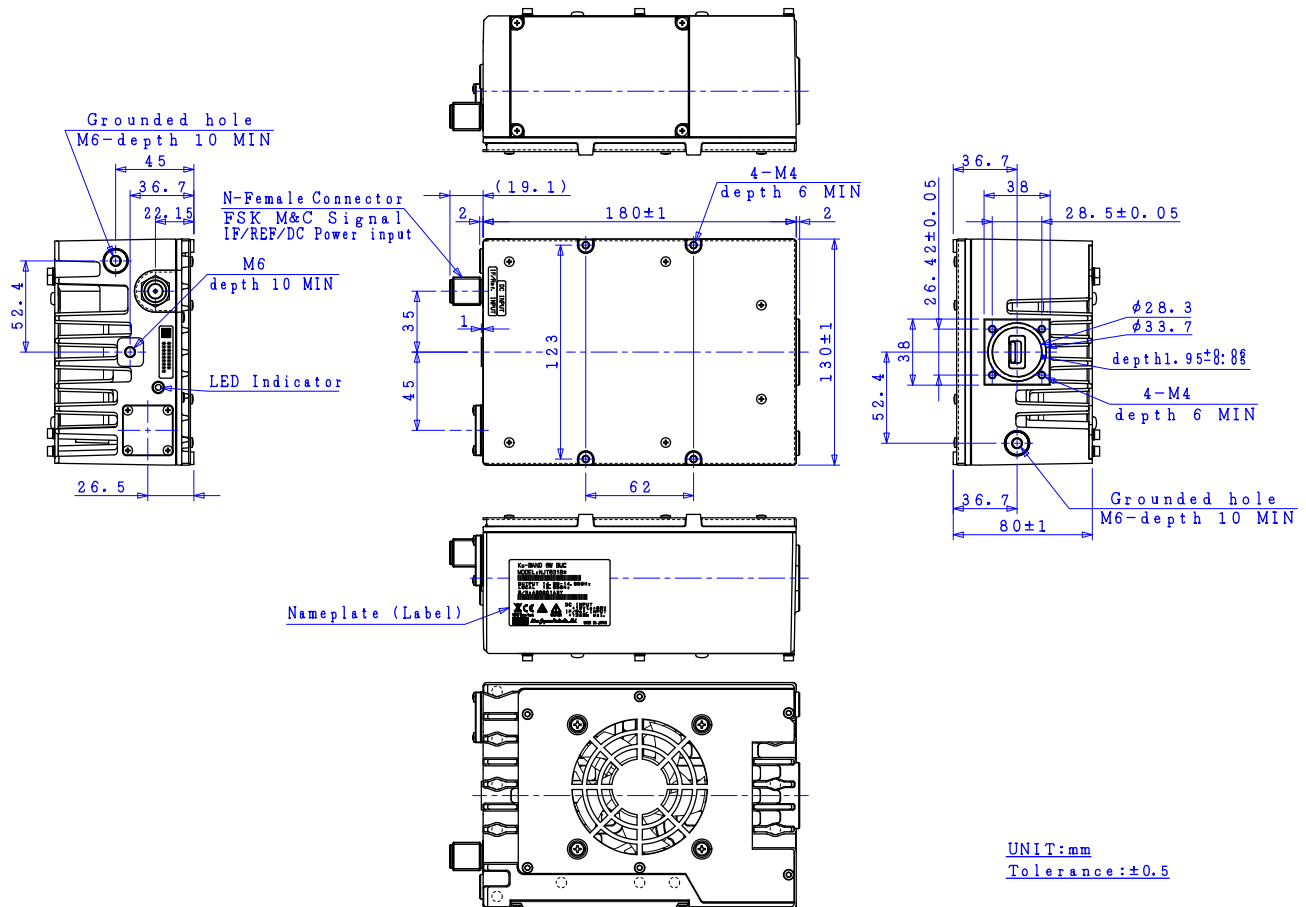
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Rev.02(April. 2015) Ku 8W BUC\_NJT8318

# Universal/Standard Ku-band 8W BUC

MODEL No. **NJT8318** series

## < Outline Drawing >

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



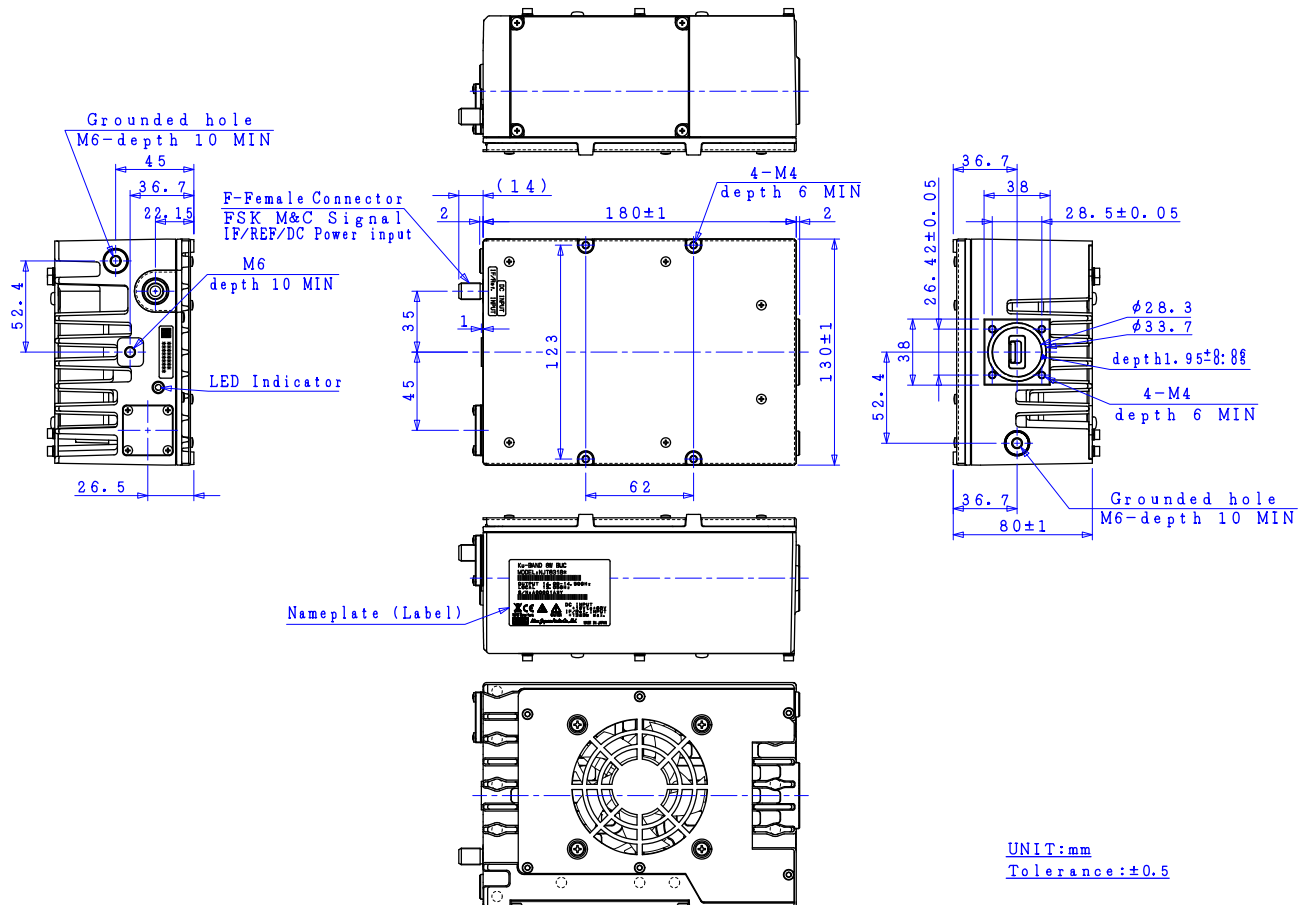
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# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Outline Drawing >

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



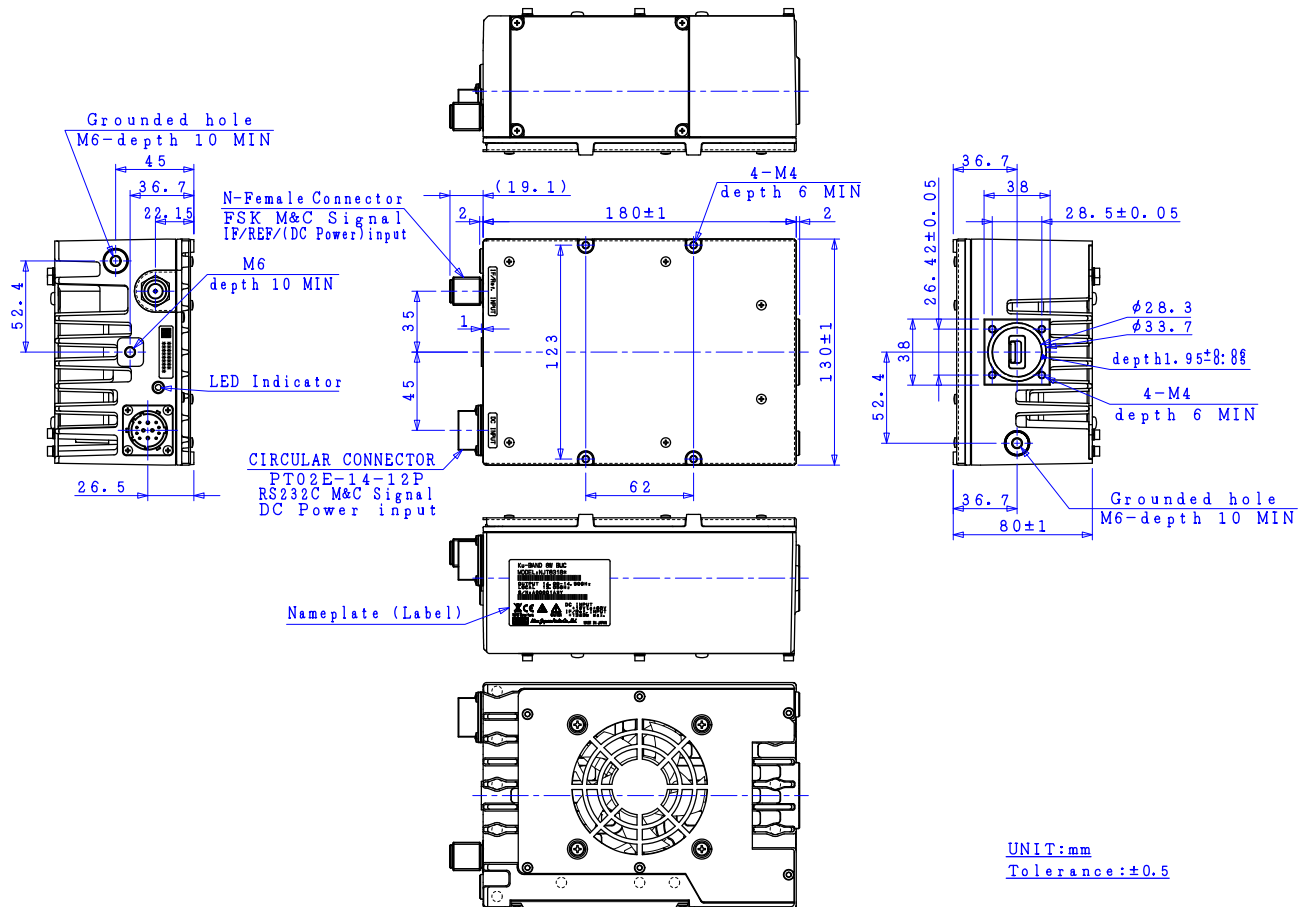
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# Universal/Standard Ku-band 8W BUC

MODEL No. **NJT8318** series

## < Outline Drawing >

**N-type, female Connector Model / DC Input: MS Connector**



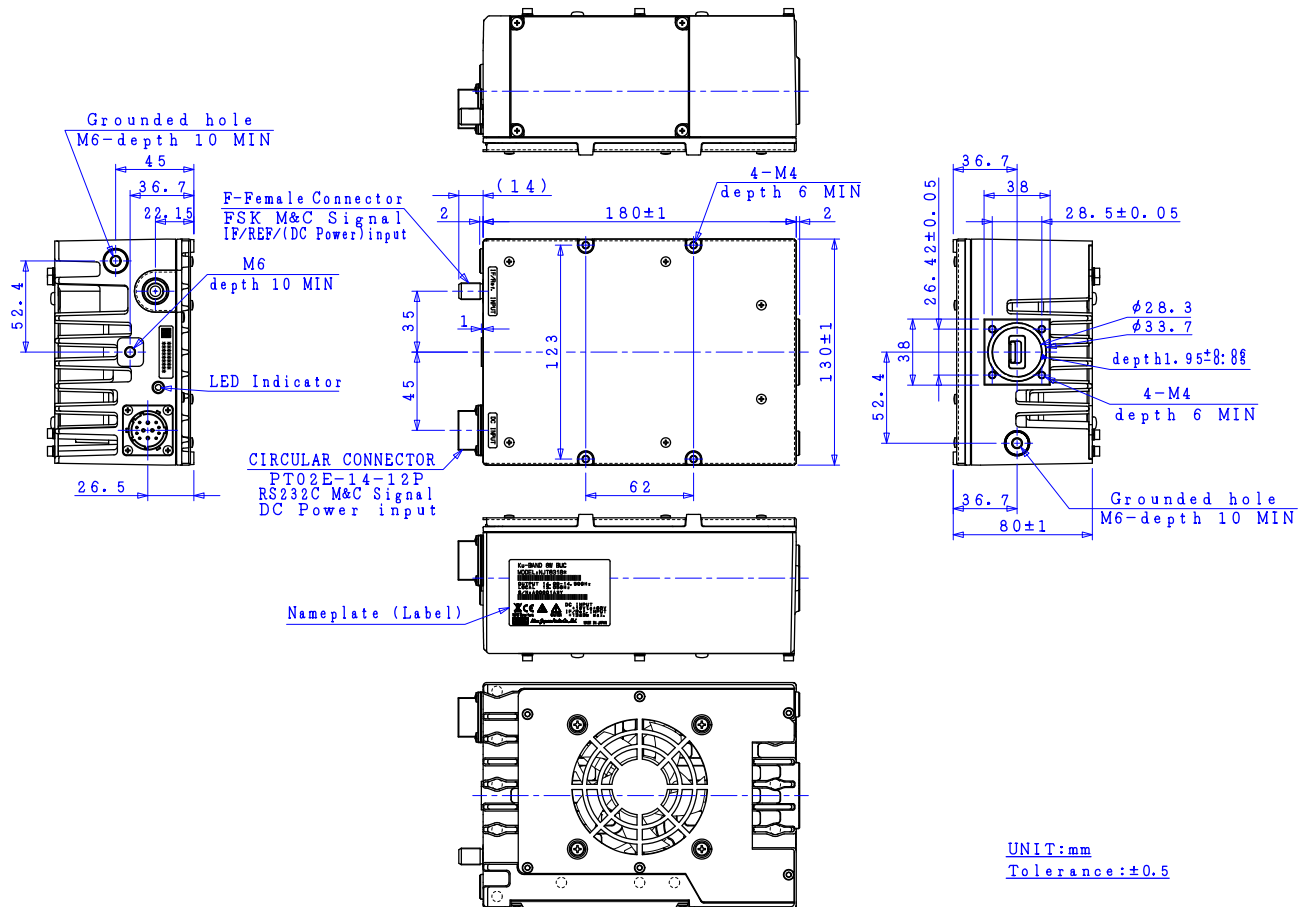
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# Universal/Standard Ku-band 8W BUC

MODEL No. **NJT8318** series

## < Outline Drawing >

F-type, female Connector Model / DC Input: MS Connector



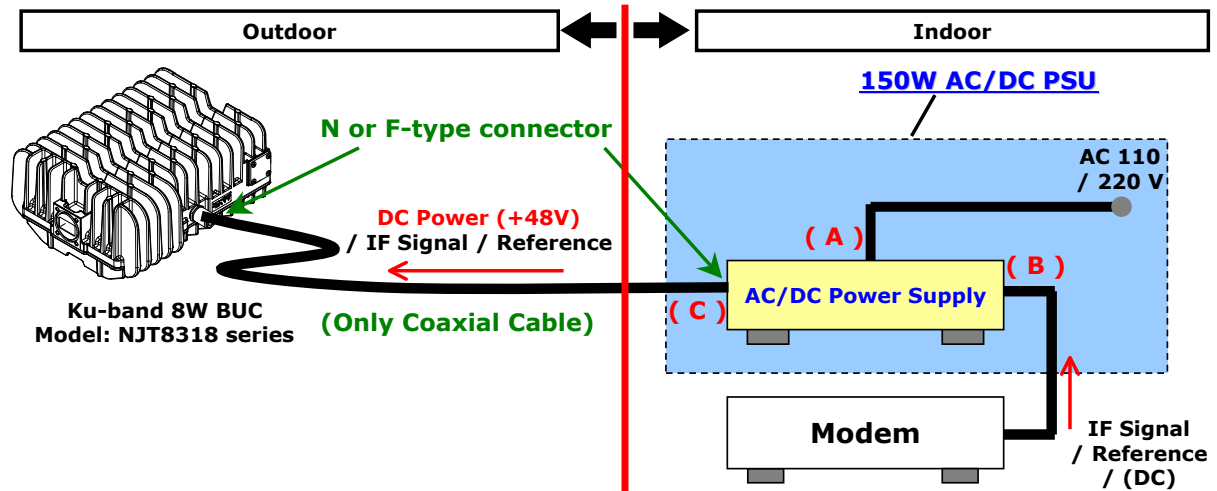
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# Universal/Standard Ku-band 8W BUC

## AC Power Option: Indoor 150W AC/DC Power Supply Unit (PSU)

### < Overview of AC Power Option >

#### - Interface -



#### - 150W AC/DC PSU -

\* The features of 150W AC/DC Power Supply Unit (PSU) is to provide the stable +48V DC power to operate Ku-band 8W BUCs, even if inner power supply of the modem is not capable enough to operate these BUCs.

\* The AC/DC box, which is having enough power supply of 150W as well as having the bias-tee which enable to pass 10MHz reference signal and L-band IF signal from the modem, is operated by AC Power and enable to operate these BUCs.

\* In addition, the aluminum housing with corrosion-proof treatment on the surface is employed with the box to use perfectly as the indoor unit.



### < Specifications >

Item	Specifications	
Interface	AC Input	IEC320-C14 inlet
	IF/Ref./DC Input	N-type, female (50 ohm) / F-type, female (75 ohm)
	IF/Ref./DC Output	N-type, female (50 ohm) / F-type, female (75 ohm)
Input AC Voltage Range	Rated Range	100 to 240 VAC
	Absolute Maximum Rating	90 to 264 VAC
Input AC Frequency Range	50 / 60 Hz	
Output Voltage / Power	+48 VDC +/- 10 % / 150 W max.	
Efficiency	80 % typical at 120 VAC, full load	
Power Factor	0.98 typical at 120 VAC, full load	
IF Frequency	950 to 1,700 MHz	
IF Insertion Loss	1 dB max.	
IF Input/Output VSWR	1.5 : 1 max.	
Standard	EN55022, EN55024, EN60950-1, EN61000-3-2/3, EN62311	
Temperature Range (ambient)	0 to +50 C (operating), -30 to +85 C (storage)	
Cooling	Forced Air by Fan	
Dimension & Housing	290 mm (W) x 230 mm (D) x 44 mm (H)	
( without Interface Connectors / Switch)	[11.41" (W) x 9.06" (D) x 1.73" (H)]	
Weight (without Cable)	1.6 kg [3.5 lbs]	
Accessories	Coaxial cable of 1 m, AC power cable of 1 m, 1U rack mount kit (Option)	

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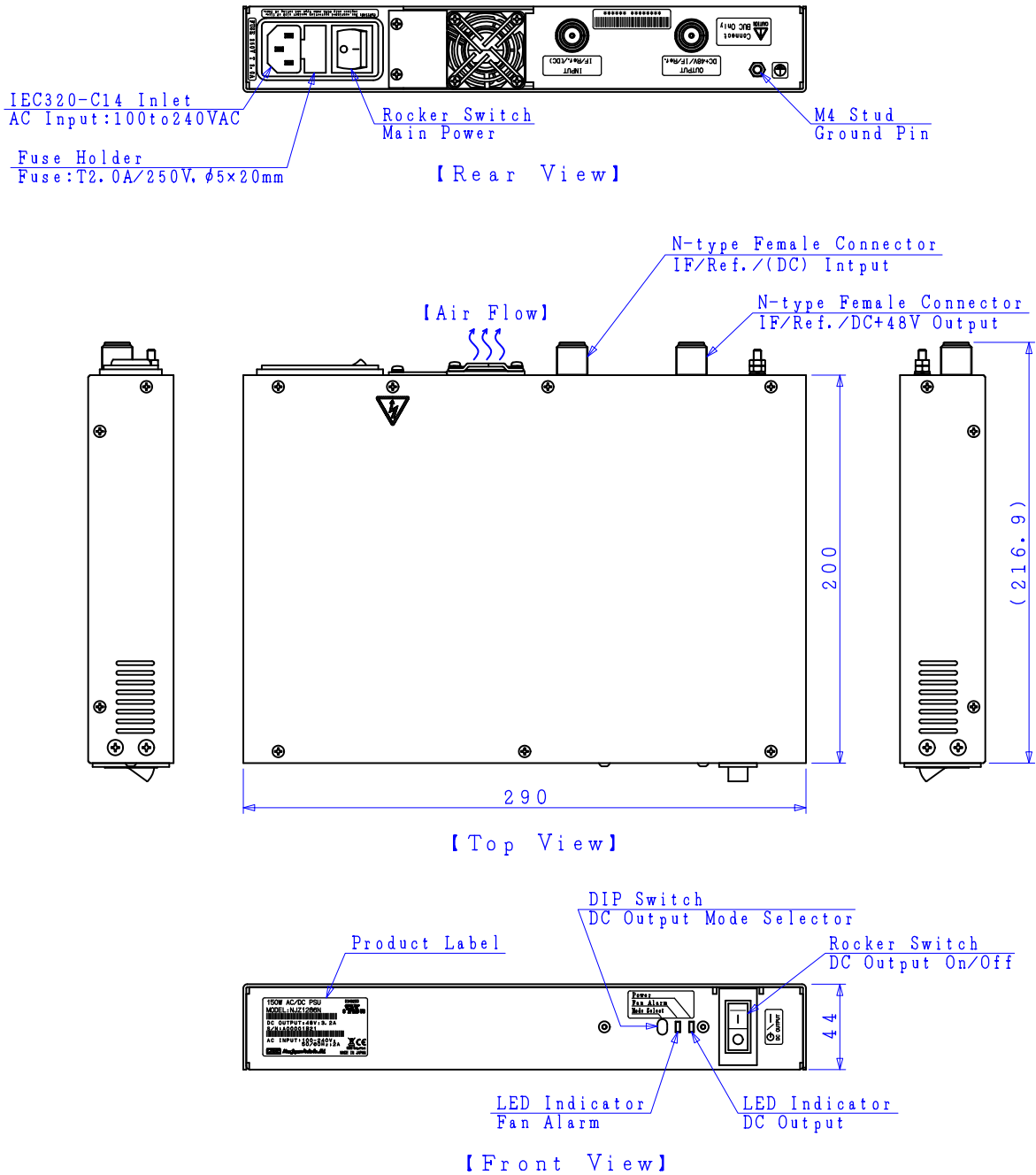
Rev.02(April. 2015) Ku 8W BUC\_NJT8318

# ■ Universal/Standard Ku-band 8W BUC

## AC Power Option: Indoor 150W AC/DC Power Supply Unit (PSU)

### < Outline Drawing >

#### N-type, female Connector Model (AC/DC PSU)



UNIT : mm

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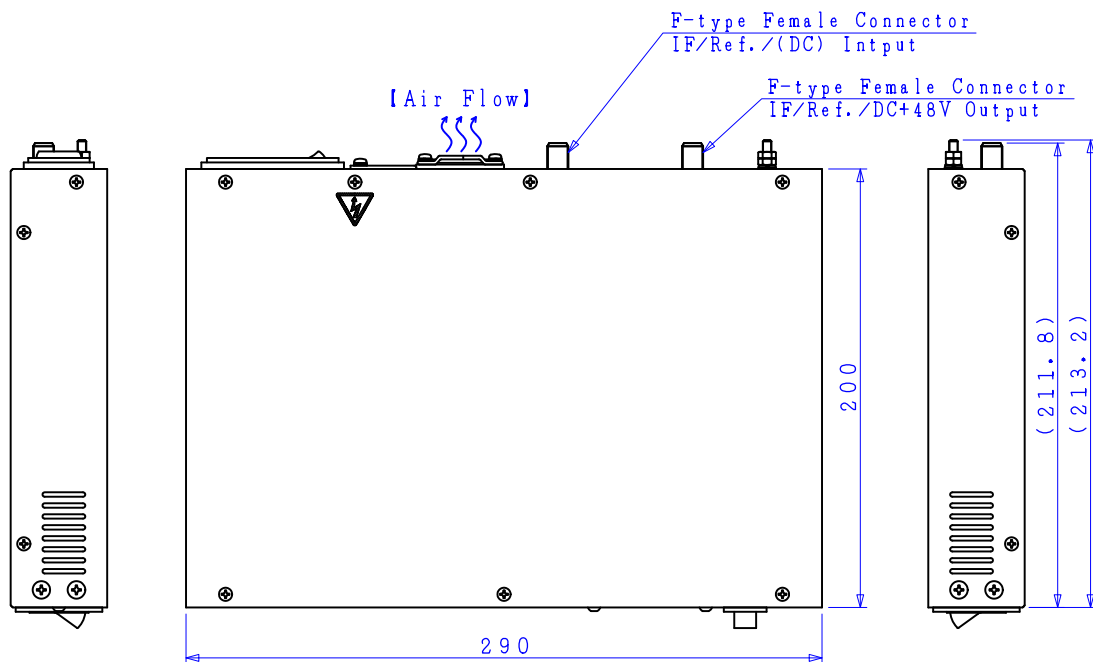
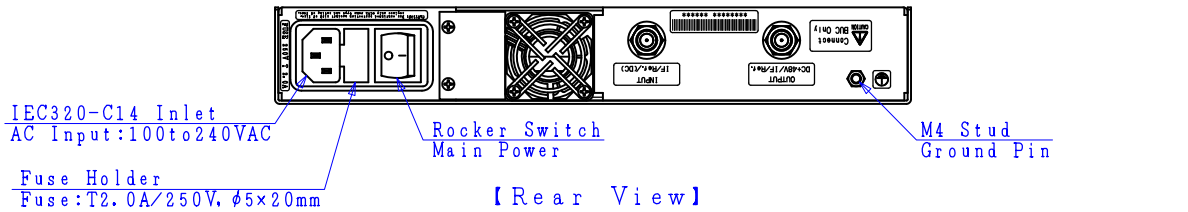


■ Universal/Standard Ku-band 8W BUC

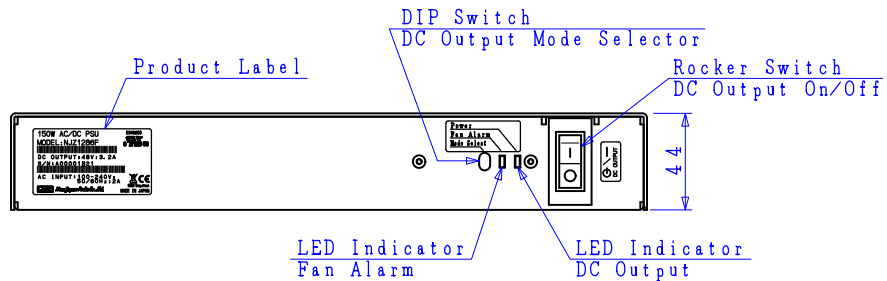
AC Power Option: Indoor 150W AC/DC Power Supply Unit (PSU)

< Outline Drawing >

F-type, female Connector Model (AC/DC PSU)



【Top View】



【Front View】

UNIT : mm

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