

# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Features >

- \* **High Temperature Operating**
  - Operation Guarantee Temperature Range: -40 to +75 °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 * Note 2 (IF Connector Option)						
NJT8318NM					N-type	AC Power Option			IF Connector * Note 1				
NJT8318FM					F-type		+18 to +60 V DC Power		IF Connector				
NJT8318NA					N-type	MS Connector (IF Connector Option) * Note 2			FSK M&C				
NJT8318FA					F-type		RS-232C M&C						
NJT8318NK					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
NJT8318FK							F-type				MS Connector * Note 2 (IF Connector Option)		
NJT8318NMK							N-type					AC Power Option	IF Connector * Note 1
NJT8318FMK							F-type				+18 to +60 V DC Power		IF Connector
NJT8318NMR							N-type					MS Connector (IF Connector Option) * Note 2	FSK M&C
NJT8318FMR							F-type				RS-232C M&C		
NJT8318NMRA							N-type					AC Power Option	IF Connector * Note 1
NJT8318FMRA							F-type				+18 to +60 V DC Power		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	N/A
NJT8318UF							F-type				MS Connector * Note 2 (IF Connector Option)		
NJT8318UNM							N-type	AC Power Option				IF Connector * Note 1	
NJT8318UFM							F-type				+18 to +60 V DC Power	IF Connector	
NJT8318UNA							N-type	MS Connector (IF Connector Option) * Note 2				FSK M&C	
NJT8318UFA							F-type				RS-232C M&C		
NJT8318UNK					N-type	AC Power Option	IF Connector * Note 1						
NJT8318UFK					F-type		+18 to +60 V DC Power	IF Connector					
NJT8318UNMK					N-type	MS Connector (IF Connector Option) * Note 2		FSK M&C					
NJT8318UFMK					F-type		RS-232C M&C						
NJT8318UNMR					N-type	AC Power Option		IF Connector * Note 1					
NJT8318UFMR					F-type		+18 to +60 V DC Power	IF Connector					
NJT8318UNMRA					N-type	MS Connector (IF Connector Option) * Note 2		FSK M&C					
NJT8318UFMRA					F-type		RS-232C M&C						

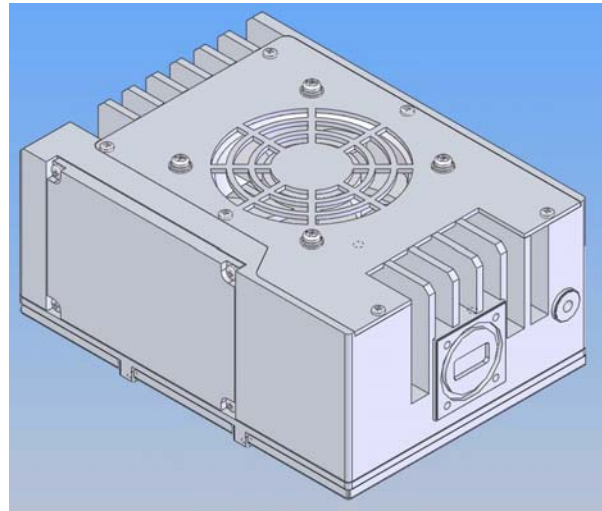
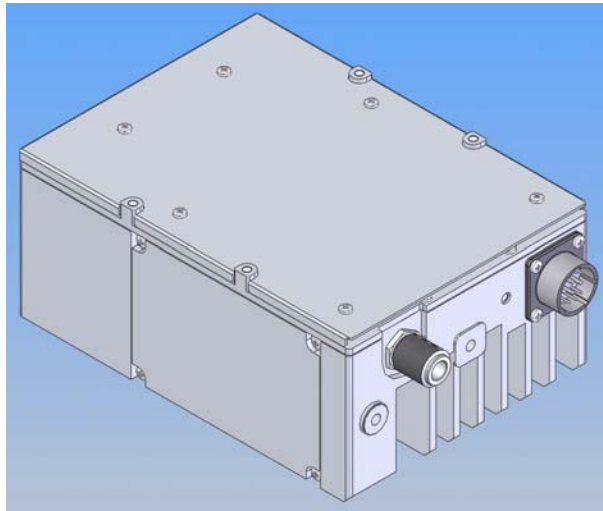
\* Note1 ) Additional indoor 150W AC/DC PSU is enclosed for AC Power Option and DC Power is supplied at IF connector of BUC from AC/DC PSU via IF cable.

\* Note2 ) MS Connector models are available to apply DC voltage via either MS Connector or IF Connector.

# ■ Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Overview >



### < Specifications >

Item	Specifications	
Output Interface	Waveguide, WR75 (with Groove)	
Input Interface	N-type, female (50 ohm)	[N-type IF Connector Model]
	F-type, female (75 ohm)	[F-type IF Connector Model]
Output Power @ 1 dB G.C.P.	+39 dBm min. over temperature	
ACPR	-28 dBc typ. @ Pout = +38 dB	
Linear Gain	65 dB nom., 59 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
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	[Universal Ku-band]	Tx: 14.0 to 14.5 GHz
		-156 dBm/Hz max. @10.95 to 12.75 GHz
		Tx: 13.75 to 14.0 GHz
	[Standard Ku-band]	-156 dBm/Hz max. @10.95 to 12.25 GHz
		-125 dBm/Hz max. @12.25 to 12.75 GHz
		Tx: 14.0 to 14.5 GHz
		-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	+18 to +60 VDC Power	
Power Consumption	65 W typ. @ No IF signal / 80 W typ., 90 W max. @ Pout = +39 dBm	
Mute	Shut off the HPA in case of L.O. unlocked or no 10 MHz reference signal, or Over temperature	
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
	[RS-232C Serial M&C]	Function: Power Monitor / TX On/Off Control / Alarm ... etc
		Interface: RS-232C
		Function: Power Monitor / TX On/Off Control / Alarm / Digital Step Attenuator ... etc
Temperature Range (ambient)	[Operating]	-40 to +75 °C (Operating Guarantee)
		-40 to +55 °C (Performance Guarantee)
	[Storage]	-40 to +75 °C
Waterproof/Dustproof (IP Code)	IP 67	
Dimension & Housing	180 mm (L) x 130 mm (W) x 80 mm (H)	
( without Interface Connectors and	[7.09" (L) x 5.12" (W) x 3.15" (H)]	
Weight	2.4kg [5.3 lbs]	

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

(2/9)  
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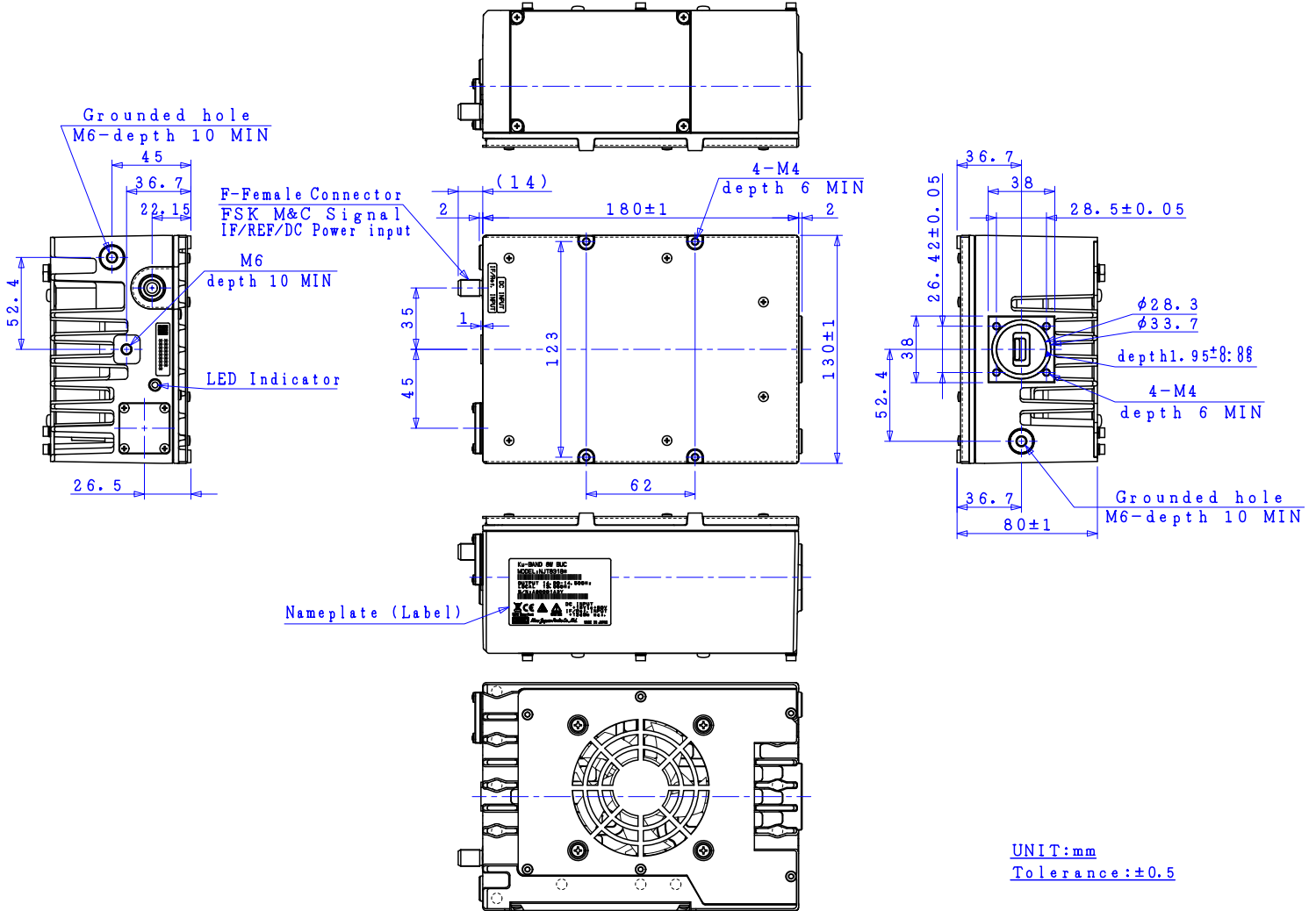


# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Outline Drawing >

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



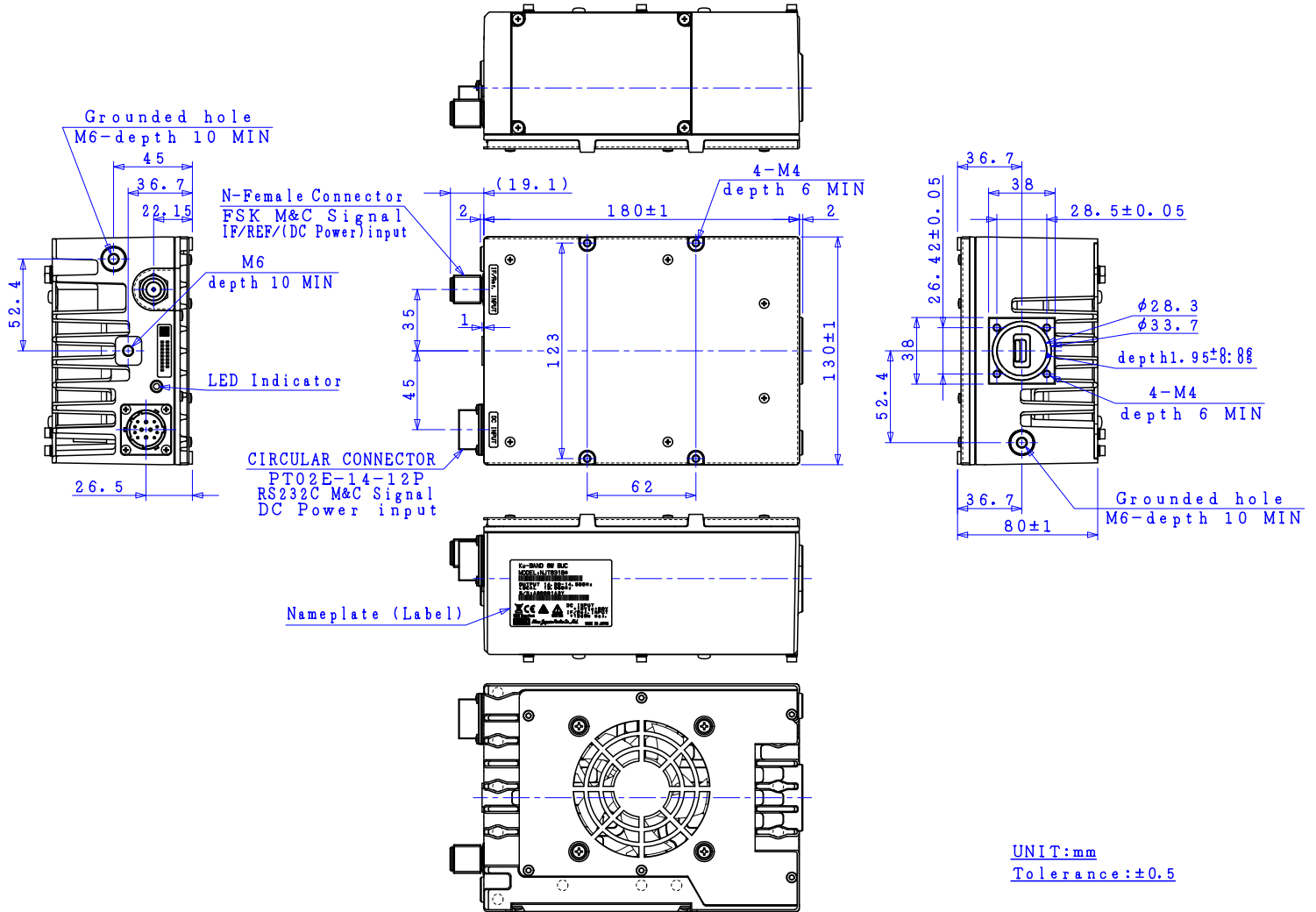
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# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Outline Drawing >

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



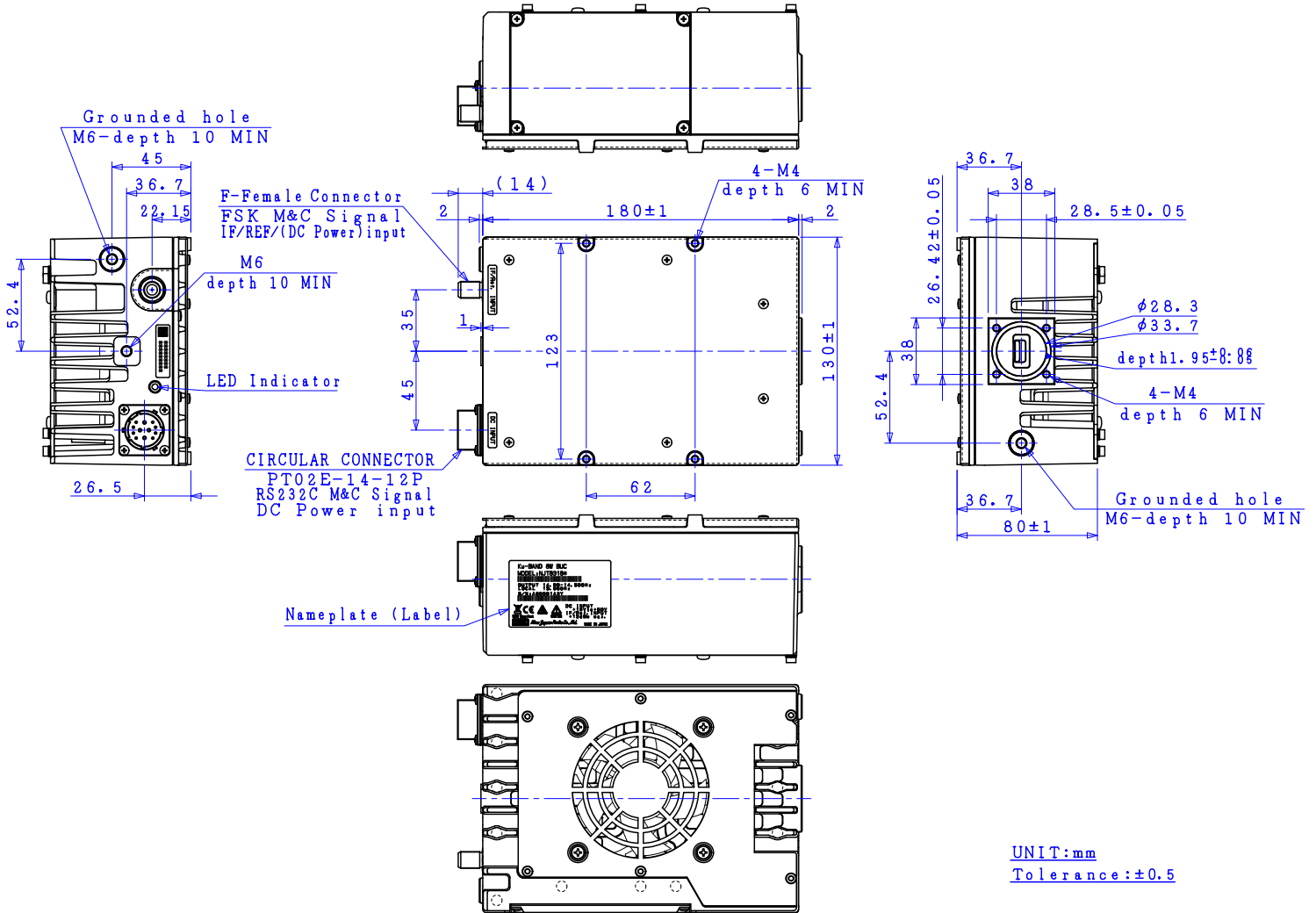
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# Universal/Standard Ku-band 8W BUC

## MODEL No. NJT8318 series

### < Outline Drawing >

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



UNIT:mm  
Tolerance:±0.5

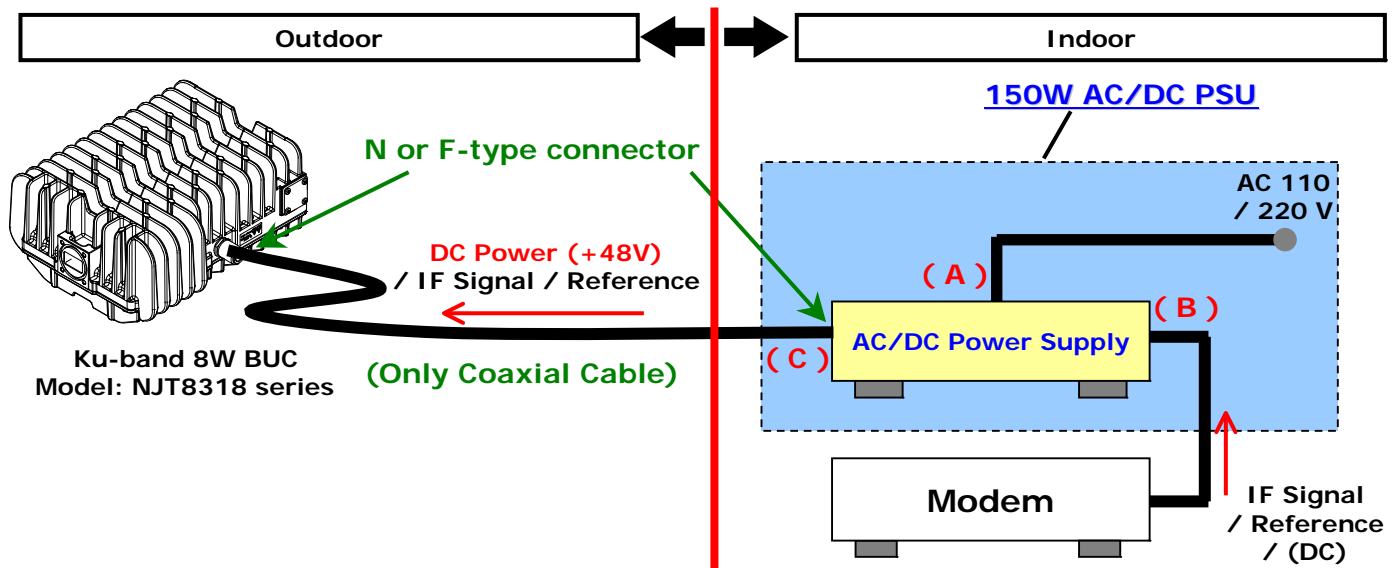
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# Universal/Standard Ku-band 8W BUC

## 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 ( without Interface Connectors / Switch)	290 mm (W) x 230 mm (D) x 44 mm (H) [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)	

(7/9)

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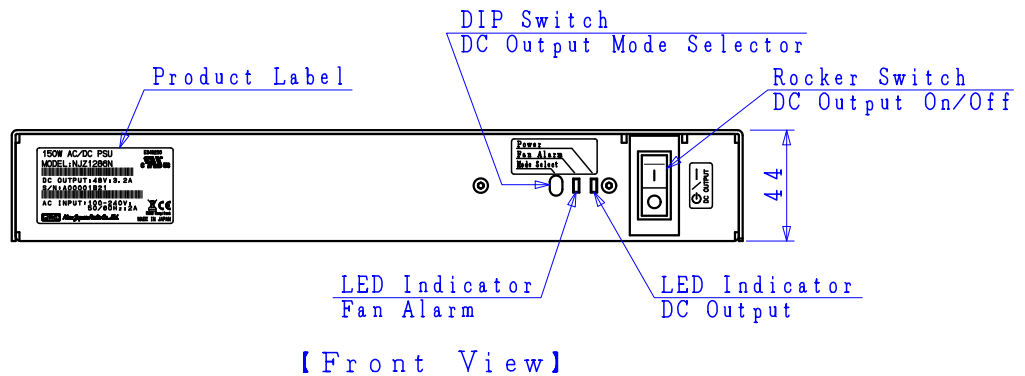
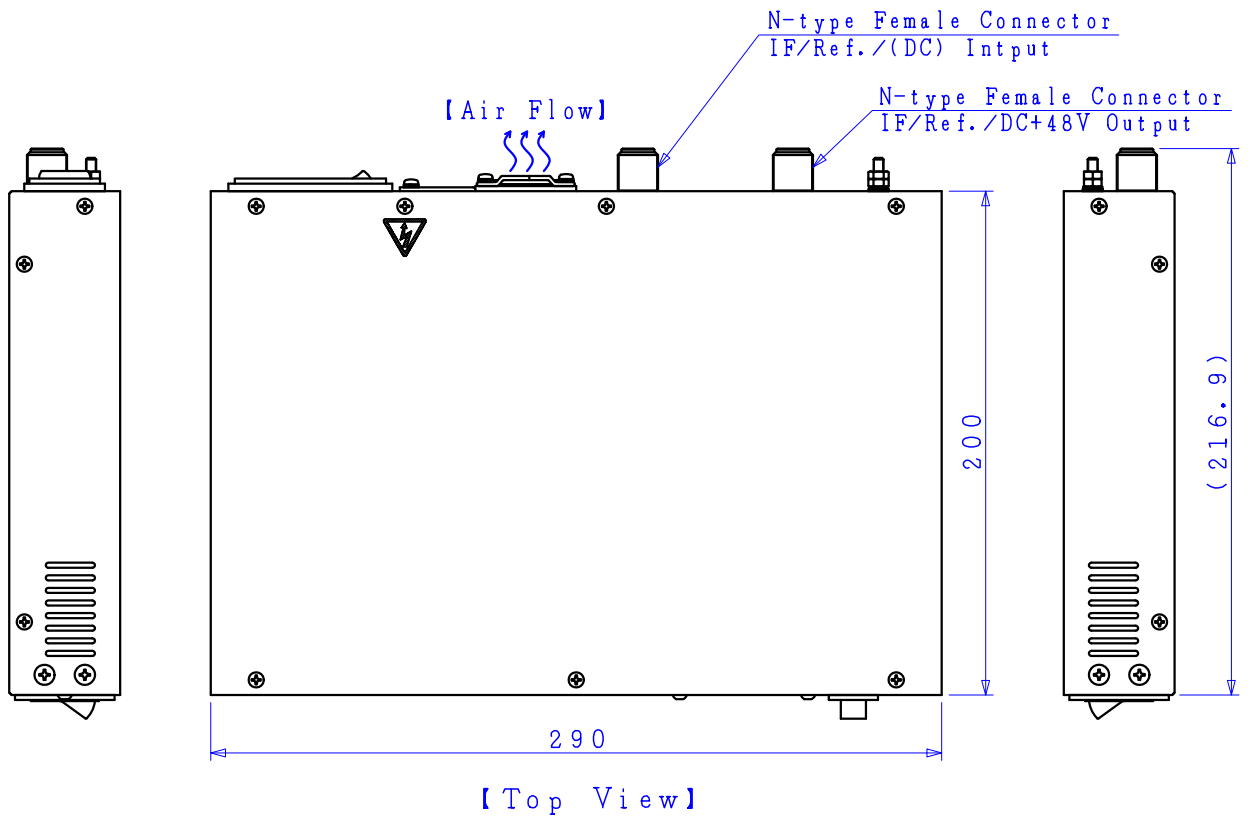
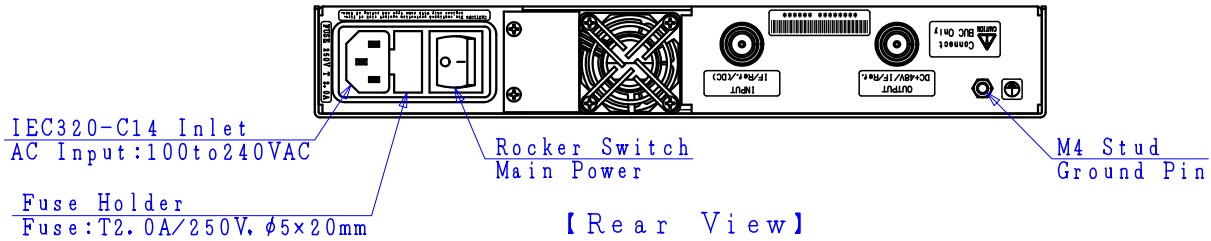
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# ■ Universal/Standard Ku-band 8W BUC

## 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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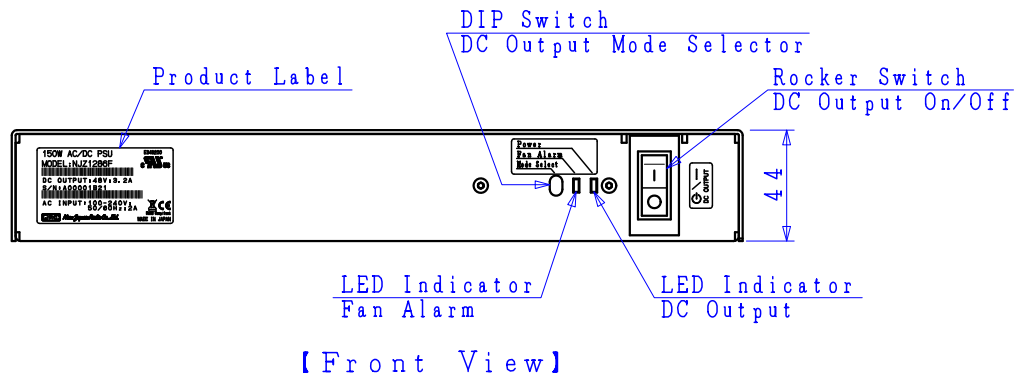
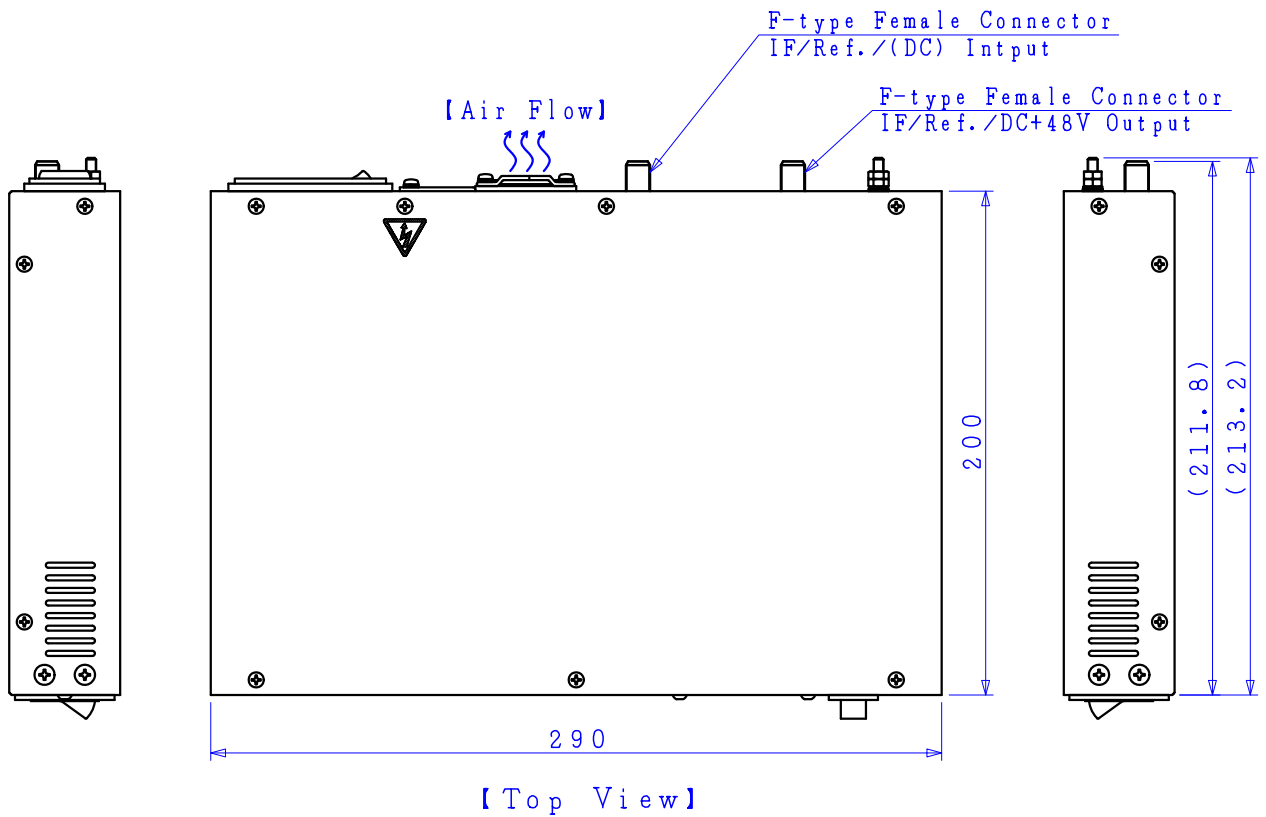
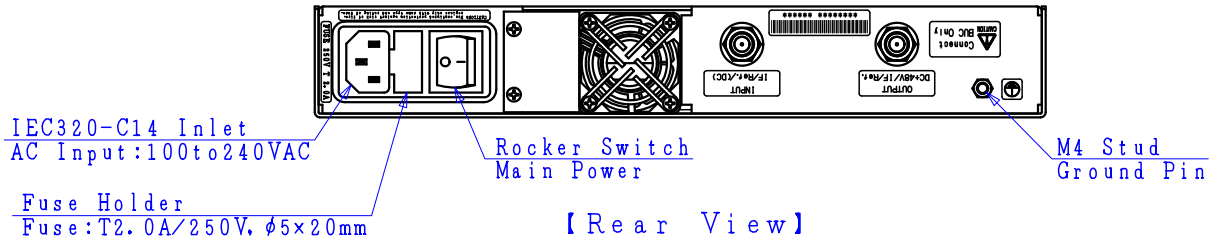


# ■ Universal/Standard Ku-band 8W BUC

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

### < Outline Drawing >

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



UNIT : mm

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