

# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 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

(16W Model)

- P1dB: +42 dBm min. over temperature
- Power Consumption: 160 W typ.
- IM3: -28 dBc @ Pout <= +39 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								
NJT8319N	14.0 to 14.5 GHz (Standard Ku-band)	13.05 GHz	950 to 1,450 MHz	16W Linear (+42dBm min.)	N-type	+36 to +60 V DC Power	IF Connector	N/A								
NJT8319F					F-type		MS Connector * Note 2 (IF Connector Option)									
NJT8319NM					N-type				AC Power Option	MS Connector * Note 1						
NJT8319FM					F-type		+36 to +60 V DC Power			IF Connector						
NJT8319NMA					N-type	MS Connector * Note 2 (IF Connector Option)			FSK M&C							
NJT8319FMA					F-type		AC Power Option			MS Connector * Note 1						
NJT8319NK					13.75 to 14.5 GHz (Universal Ku-band)	12.80 GHz			950 to 1,700 MHz	N-type	+36 to +60 V DC Power	IF Connector	N/A			
NJT8319FK							F-type			MS Connector * Note 2 (IF Connector Option)						
NJT8319NMK							N-type					AC Power Option		MS Connector * Note 1		
NJT8319FMK							F-type			+36 to +60 V DC Power				IF Connector		
NJT8319NMKA							N-type				MS Connector * Note 2 (IF Connector Option)	FSK M&C				
NJT8319FMKA							F-type			AC Power Option				MS Connector * Note 1		
NJT8319NMR							13.75 to 14.5 GHz (Universal Ku-band)				12.80 GHz	950 to 1,700 MHz		N-type	+36 to +60 V DC Power	IF Connector
NJT8319UF										F-type				MS Connector * Note 2 (IF Connector Option)		
NJT8319UNM	N-type	AC Power Option	MS Connector * Note 1													
NJT8319UFM	F-type		+36 to +60 V DC Power					IF Connector								
NJT8319UNMA	N-type	MS Connector * Note 2 (IF Connector Option)						FSK M&C								
NJT8319UFMA	F-type		AC Power Option							MS Connector * Note 1						
NJT8319UNK	13.75 to 14.5 GHz (Universal Ku-band)	12.80 GHz						950 to 1,700 MHz		N-type				+36 to +60 V DC Power	IF Connector	N/A
NJT8319UFK			F-type							MS Connector * Note 2 (IF Connector Option)						
NJT8319UNMK			N-type		AC Power Option	MS Connector * Note 1										
NJT8319UFMK			F-type			+36 to +60 V DC Power			IF Connector							
NJT8319UNMKA			N-type		MS Connector * Note 2 (IF Connector Option)				FSK M&C							
NJT8319UFMKA			F-type			AC Power Option				MS Connector * Note 1						
NJT8319UNMR			13.75 to 14.5 GHz (Universal Ku-band)		12.80 GHz				950 to 1,700 MHz	N-type			+36 to +60 V DC Power	IF Connector	N/A	
NJT8319UFMR						F-type				MS Connector * Note 2 (IF Connector Option)						
NJT8319UNMRA						N-type	AC Power Option				MS Connector * Note 1					
NJT8319UFMRA						F-type				+36 to +60 V DC Power	IF Connector					
NJT8319UFMRA				N-type		MS Connector * Note 2 (IF Connector Option)	RS-232C M&C									
NJT8319UFMRA				F-type						AC Power Option	MS Connector * Note 1					

\* Note1 ) Additional outdoor 250W AC/DC PSU is enclosed for AC Power Option and DC Power is supplied at MS connector of BUC from AC/DC PSU via power cable.

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

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

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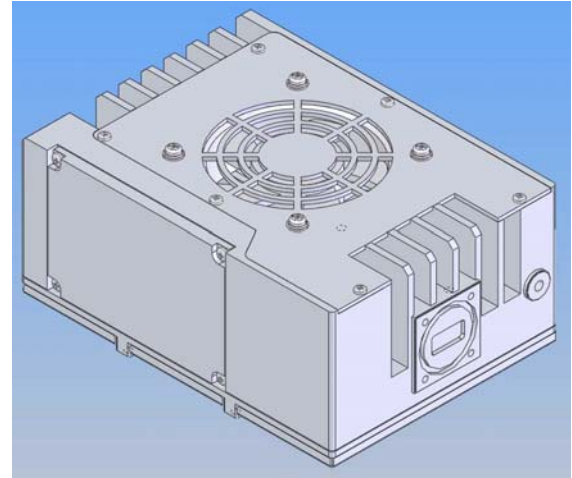
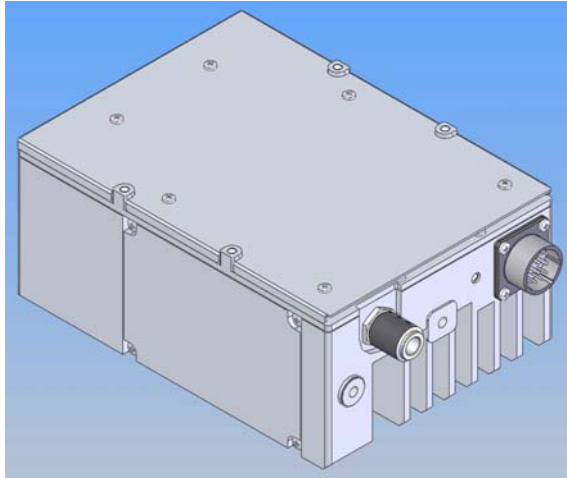
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 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 ≤ -1 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
		-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	[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 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 (Operating Guarantee)
		-40 to +55 °C (Performance Guarantee)
	[Storage]	-40 to +75 °C
Waterproof/Dustproof (IP Code)	IP 67	
Dimension & Housing ( without Interface Connectors )	180 mm (L) x 130 mm (W) x 80 mm (H)	
	[7.09" (L) x 5.12" (W) x 3.15" (H)]	
Weight	2.4kg [5.3 lbs]	

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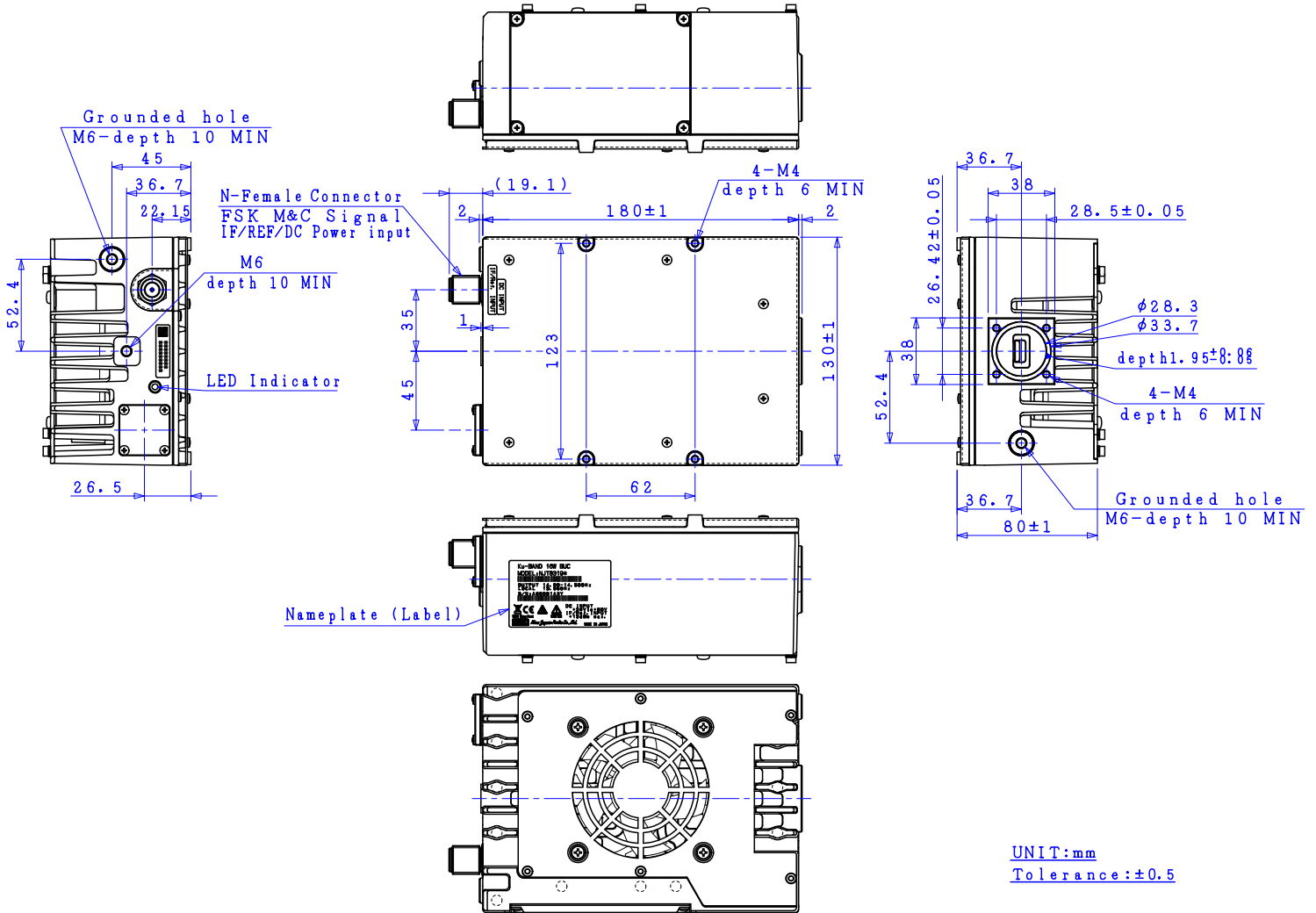
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



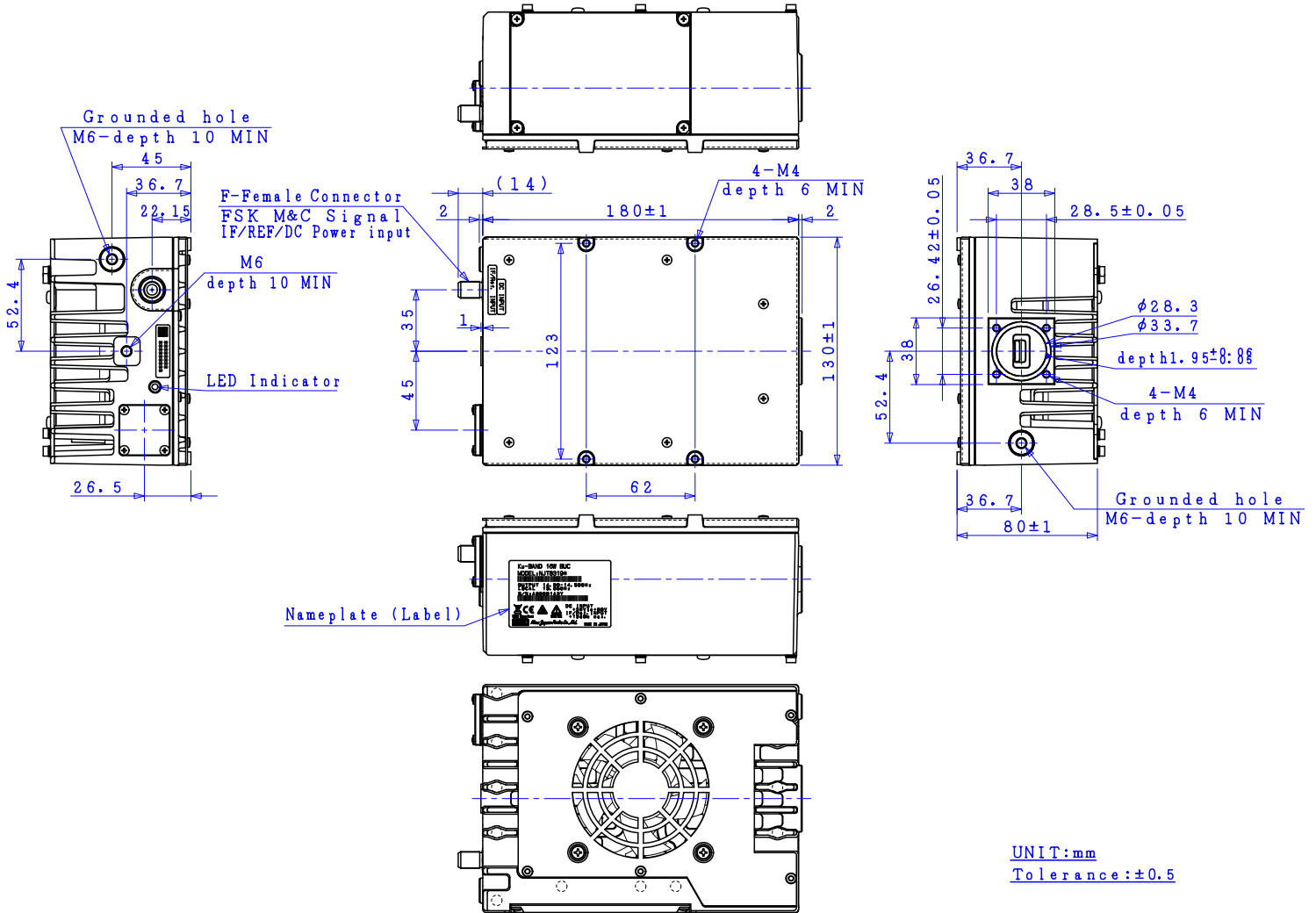
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



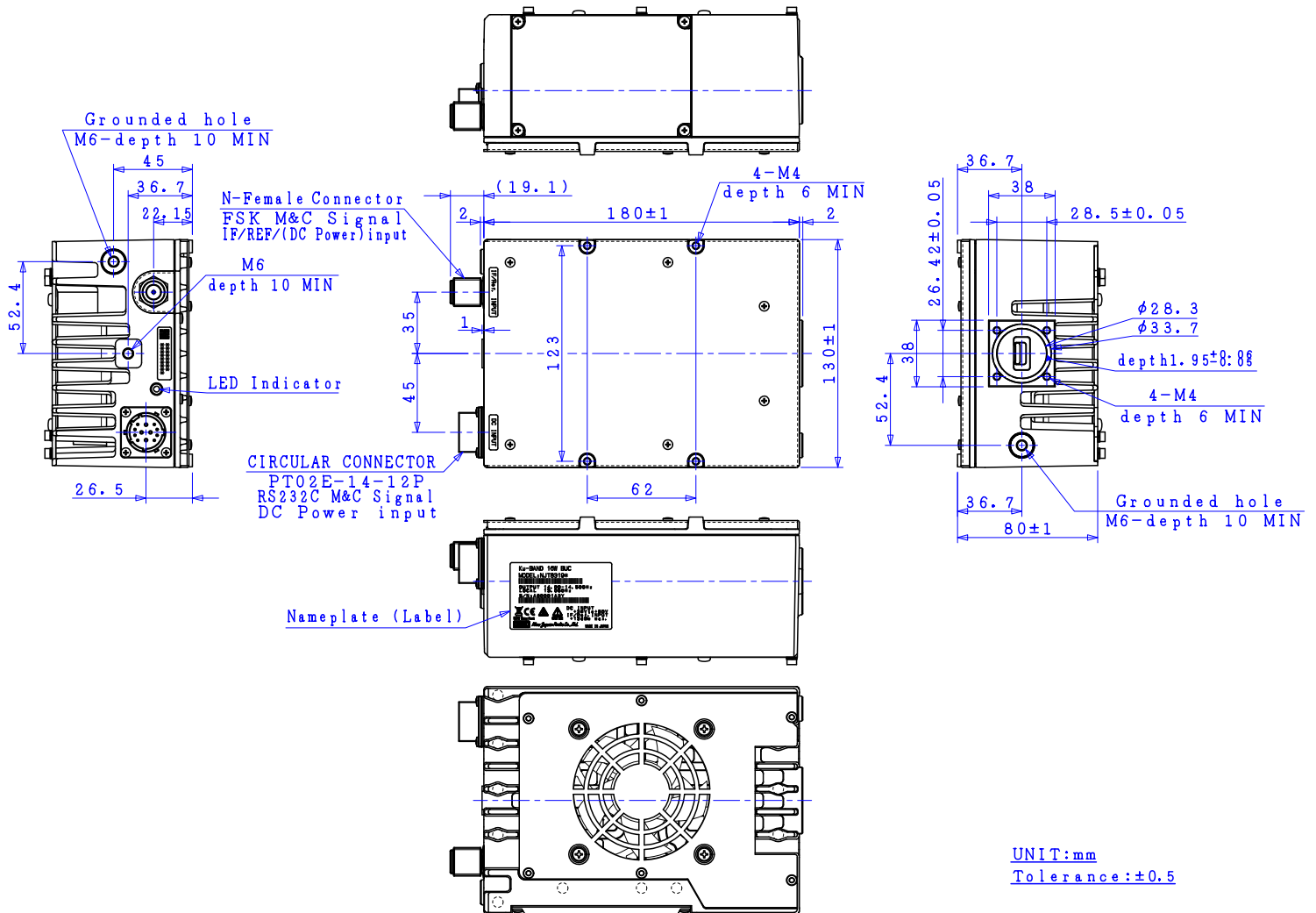
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



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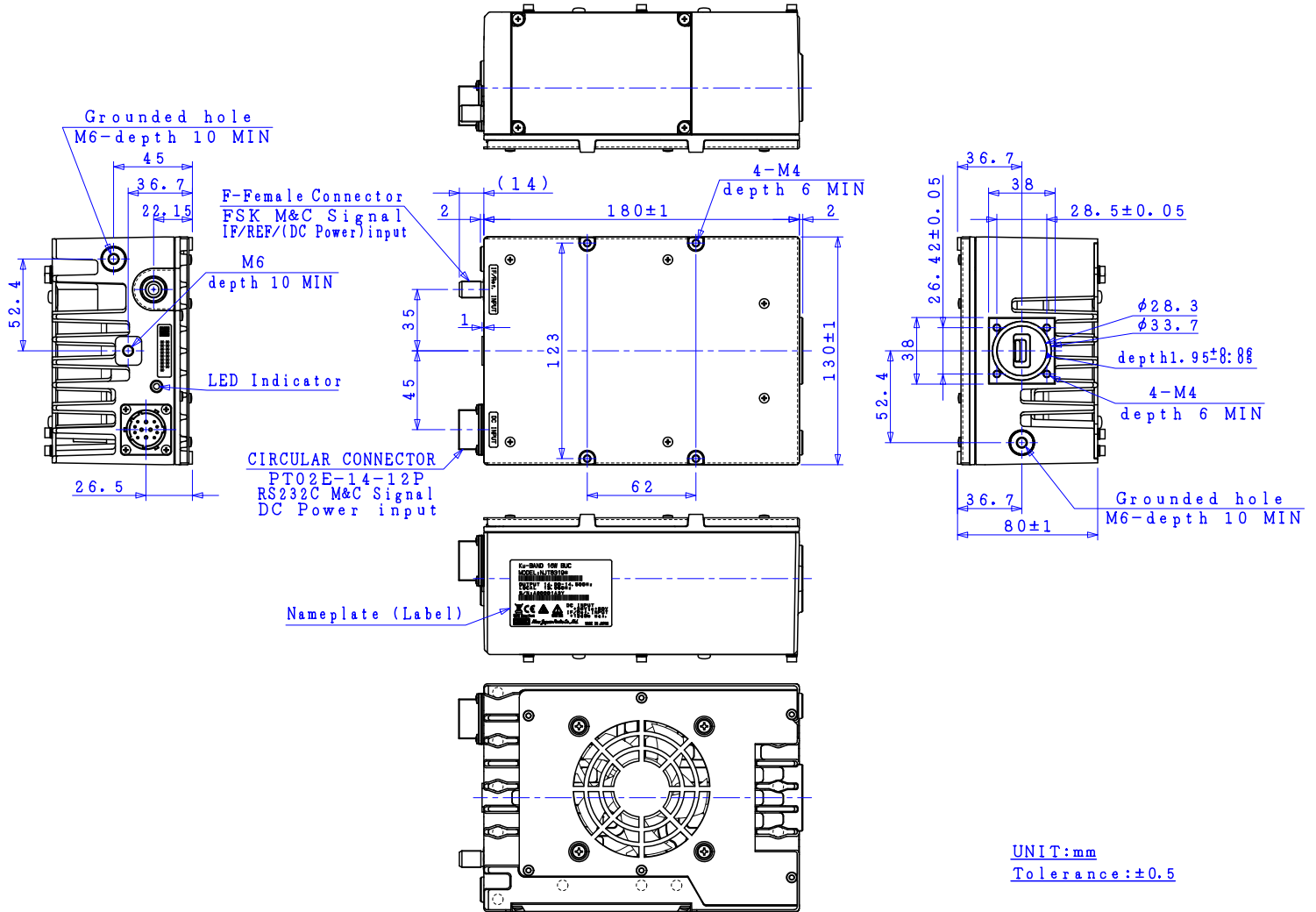
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



UNIT:mm  
Tolerance:±0.5

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

# ■ Universal/Standard Ku-band 16W BUC

## AC Power Option: Outdoor 250W AC/DC Power Supply Unit (PSU)

### < Features >

#### \* Outdoor AC/DC Power Supply

- Active Power Factor Correction (PFC) Equipped
- Input AC Voltage: 100 to 240 V
- Output DC Voltage: 48 V typ.
- Output DC Power: 250 W max.

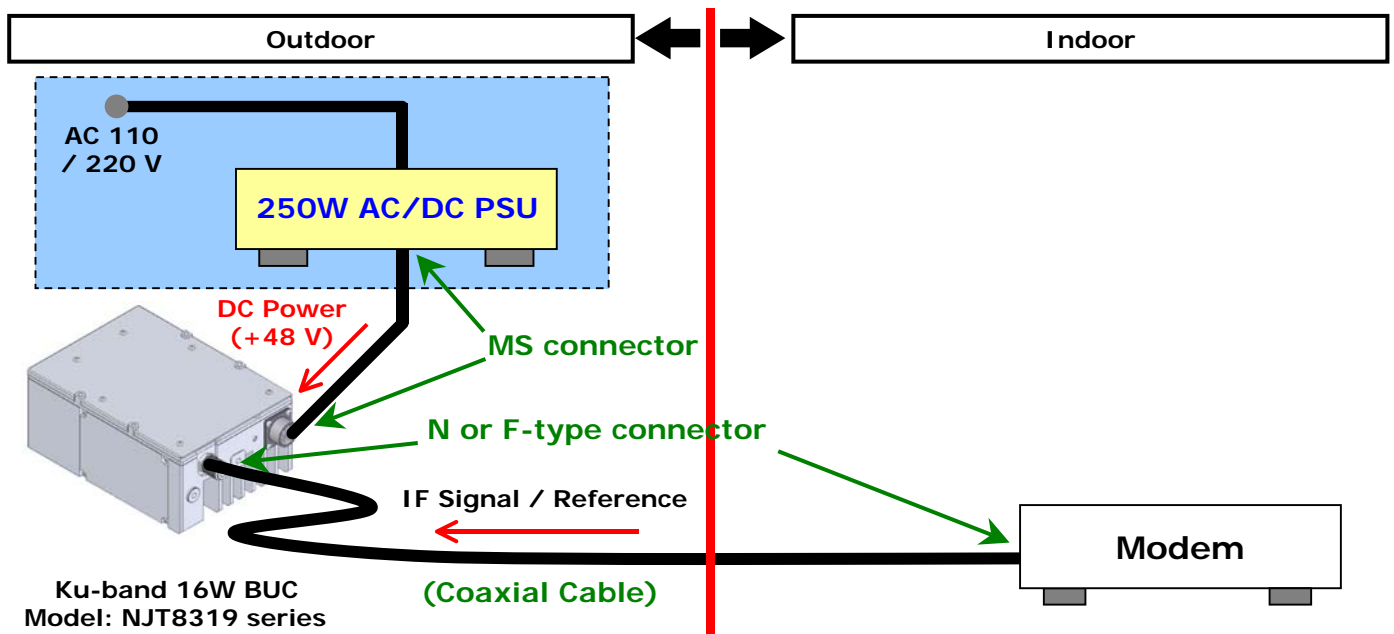
#### \* Compact Size & Light Weight

- Dimension: 186 (L) x 133 (W) x 60 (H) mm
- Weight: 1.6 kg



### < Overview of AC Power Option >

#### - Interface -



#### - 250W AC/DC PSU -

- \* The features of Outdoor 250W AC/DC Power Supply Unit (PSU) are to provide the stable +48V DC power to operate Ku-band 16W BUC, even if power supply of the equipment is not capable enough to operate the BUC.
- \* This unit employs the aluminum housing with corrosion-proof treatment on the surface and has air-sealing structure in order to use perfectly as the outdoor unit.
- \* In addition, the outdoor AC/DC PSU complies with EC DIRECTIVE.



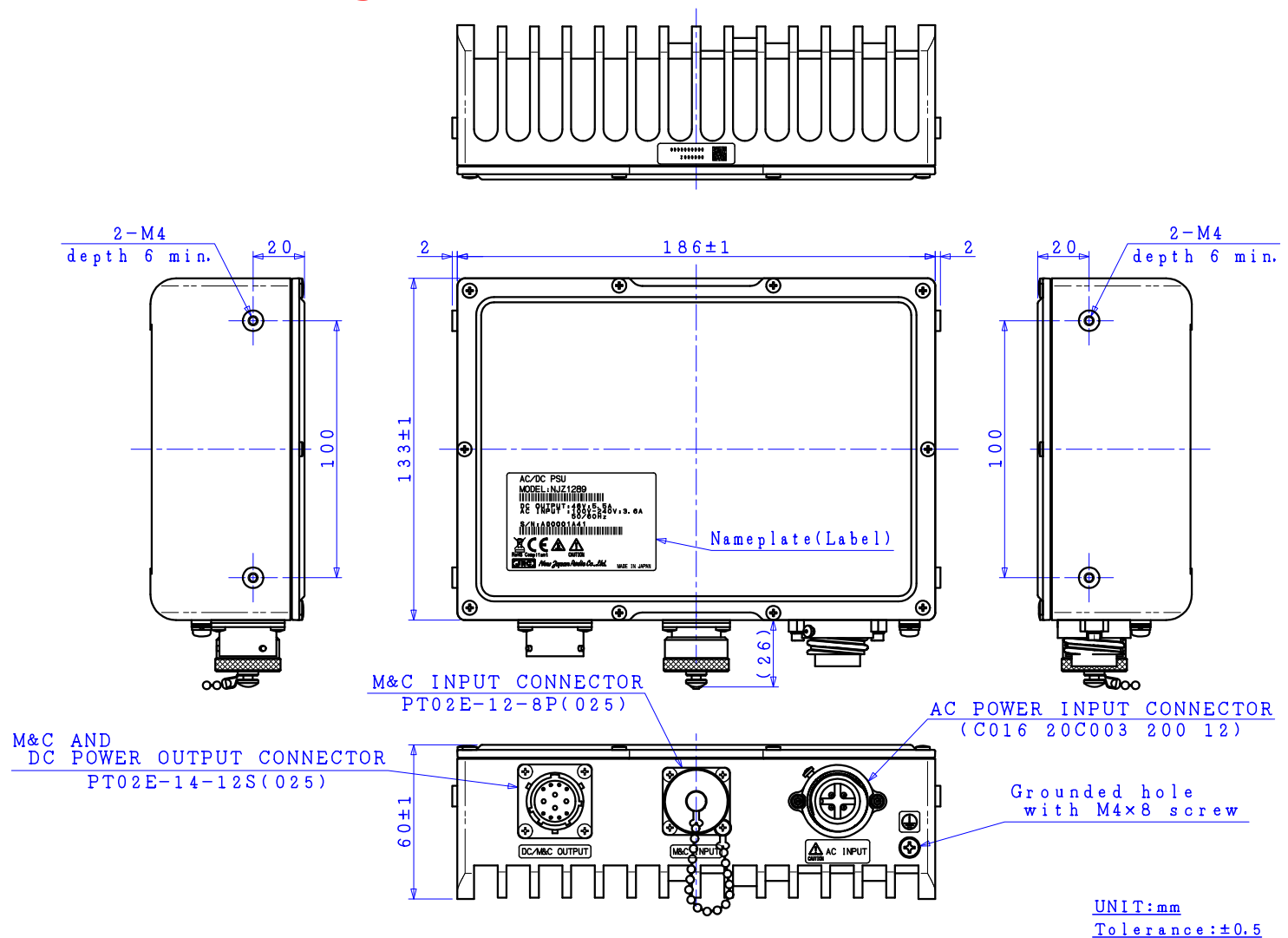
# ■ Universal/Standard Ku-band 16W BUC

## AC Power Option: Outdoor 250W AC/DC Power Supply Unit (PSU)

### < Specifications >

Item	Specifications
Input AC Voltage Range	100 to 240 V (Rating: 90 to 264 V)
Input AC Power	300 VA max.
Output DC Voltage	+48 V typ.
Output DC Power Capacity	250 W max.
Efficiency	90 %
Power Factor	0.9
Temperature Range (ambient)	Operating: -40 to +55 C Storage: -40 to +75 C
Dimension & Housing	186 (L) x 133 (W) x 60 (H) mm [7.32" (L) x 5.24" (W) x 2.36" (H)] without interface connector and screws
Weight	1.6 kg max. [3.5 lbs max.]

### < Outline Drawing >



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