

# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 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** (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 (IF Connector Option)					
NJT8319NM					N-type				AC Power Option			
NJT8319FM					F-type	MS Connector * Note 1						
NJT8319NMA					N-type		+36 to +60 V DC Power			IF Connector	FSK M&C	
NJT8319FMA					F-type	MS Connector (IF Connector Option)						
NJT8319NK					N-type			AC Power Option	MS Connector * Note 1			
NJT8319FK					F-type	MS Connector (IF Connector Option)						
NJT8319NMK					N-type		+36 to +60 V DC Power			MS Connector (IF Connector Option)		RS-232C M&C
NJT8319FMK					F-type	MS Connector * Note 1						
NJT8319NMQA					N-type			+36 to +60 V DC Power	MS Connector (IF Connector Option)			
NJT8319FMKA					F-type	MS Connector * Note 1						
NJT8319NMR					N-type		+36 to +60 V DC Power			MS Connector (IF Connector Option)	N/A	
NJT8319FMR					F-type	MS Connector * Note 1						
NJT8319NMRA					N-type			AC Power Option	MS Connector * Note 1			
NJT8319FMA					F-type	MS Connector (IF Connector Option)						
NJT8319UN					13.75 to 14.5 GHz (Universal Ku-band)		12.80 GHz			950 to 1,700 MHz		N-type
NJT8319UF						F-type		MS Connector (IF Connector Option)				
NJT8319UNM	N-type	AC Power Option	MS Connector * Note 1									
NJT8319UFM	F-type					MS Connector (IF Connector Option)						
NJT8319UNMA	N-type							+36 to +60 V DC Power	MS Connector (IF Connector Option)		FSK M&C	
NJT8319UFMA	F-type	MS Connector * Note 1										
NJT8319UNK	N-type		+36 to +60 V DC Power			MS Connector (IF Connector Option)						RS-232C M&C
NJT8319UFK	F-type	MS Connector (IF Connector Option)										
NJT8319UNMK	N-type							AC Power Option	MS Connector * Note 1			
NJT8319UFMKA	F-type	MS Connector (IF Connector Option)										
NJT8319UNMKA	N-type		+36 to +60 V DC Power			MS Connector (IF Connector Option)					N/A	
NJT8319UFMKA	F-type	MS Connector * Note 1										
NJT8319UNMR	N-type							+36 to +60 V DC Power	MS Connector (IF Connector Option)			RS-232C M&C
NJT8319UFMR	F-type	MS Connector (IF Connector Option)										
NJT8319UNMRA	N-type		AC Power Option			MS Connector * Note 1						
NJT8319UFMA	F-type	MS Connector (IF Connector Option)										
NJT8319UFMRA	F-type							MS Connector (IF Connector Option)				

\* 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.

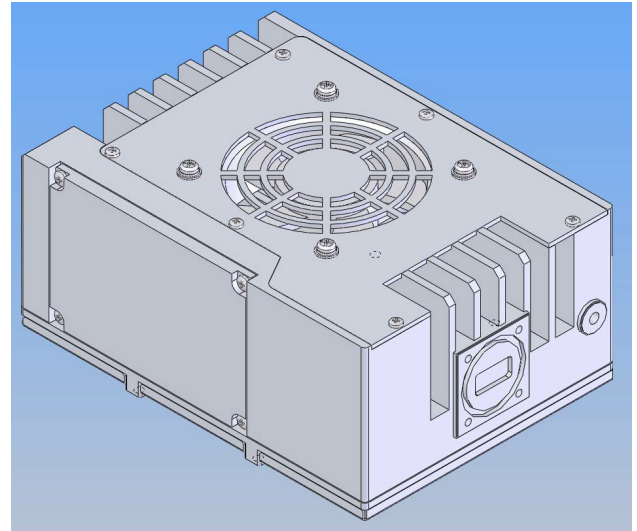
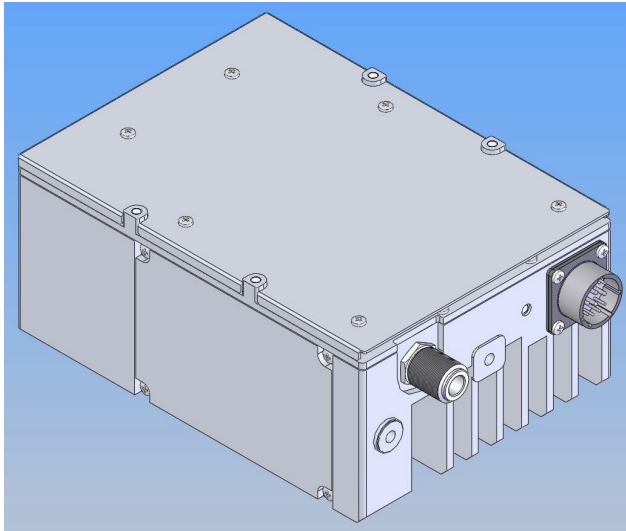
\*Note: The contents of this sheet are subject to change without notice.

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Rev.02(April. 2015) Ku 16W BUC\_NJT8319

# Universal/Standard Ku-band **16W** BUC

## MODEL No. **NJT8319** series

### < Overview >



### < Specifications >

Item	Specifications
Output Power @ 1dB G.C.P. (P1dB)	+42 dBm min. over temperature
Linear Gain	68 dB nom., 62 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	+36 to +60 VDC  @ No IF Signal      140 W typ. @ P1dB                160 W typ., 180 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 ]

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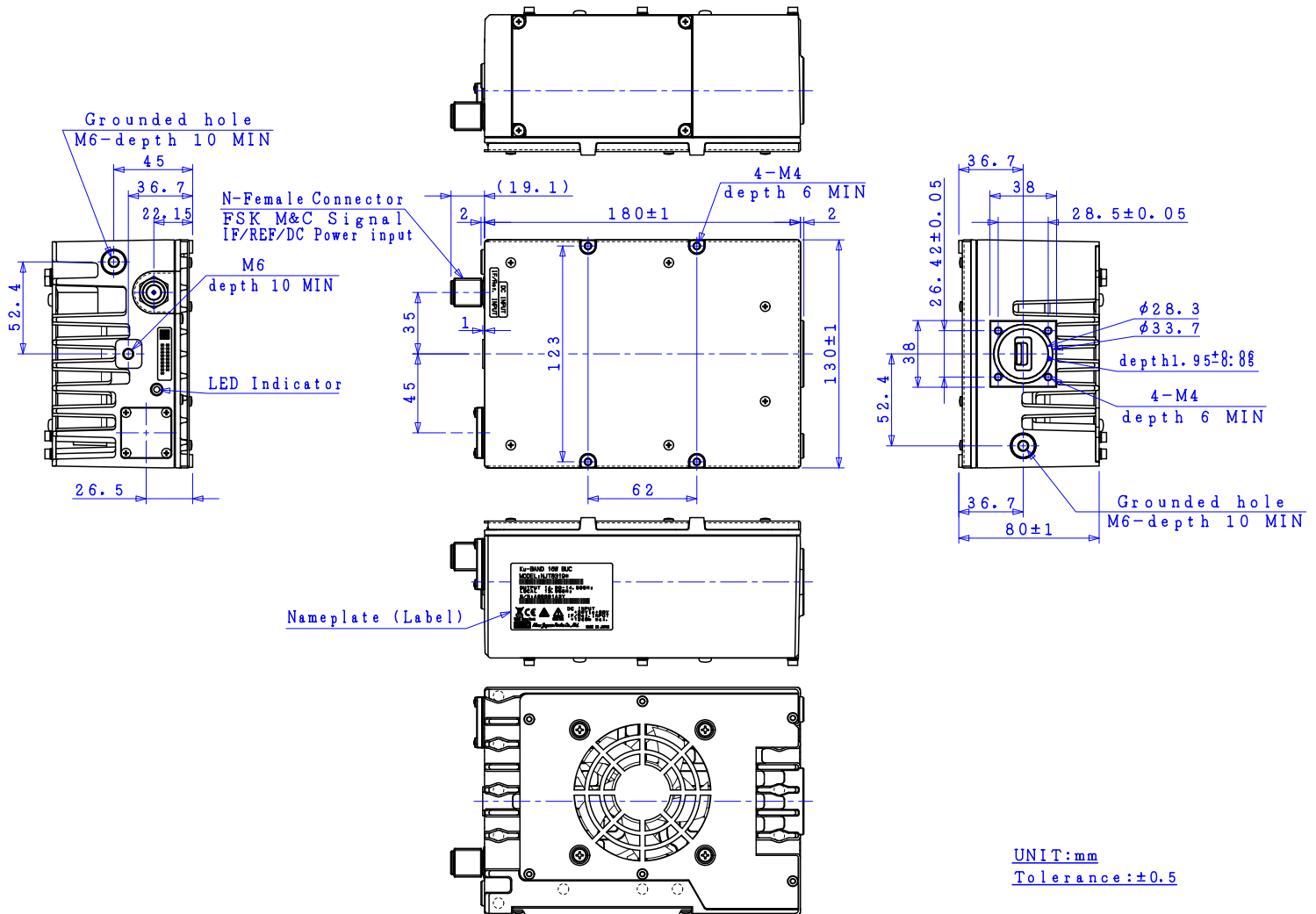
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



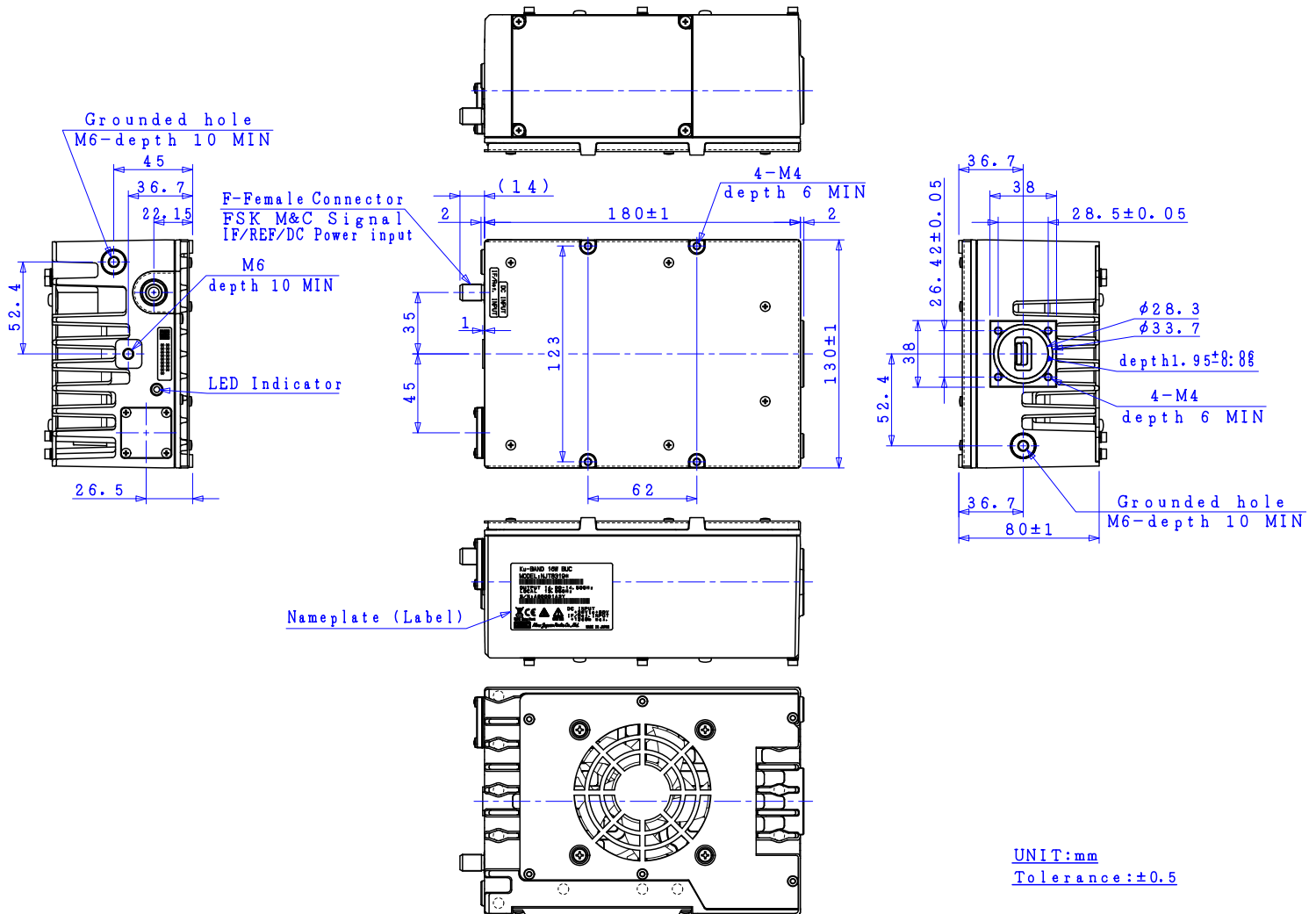
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



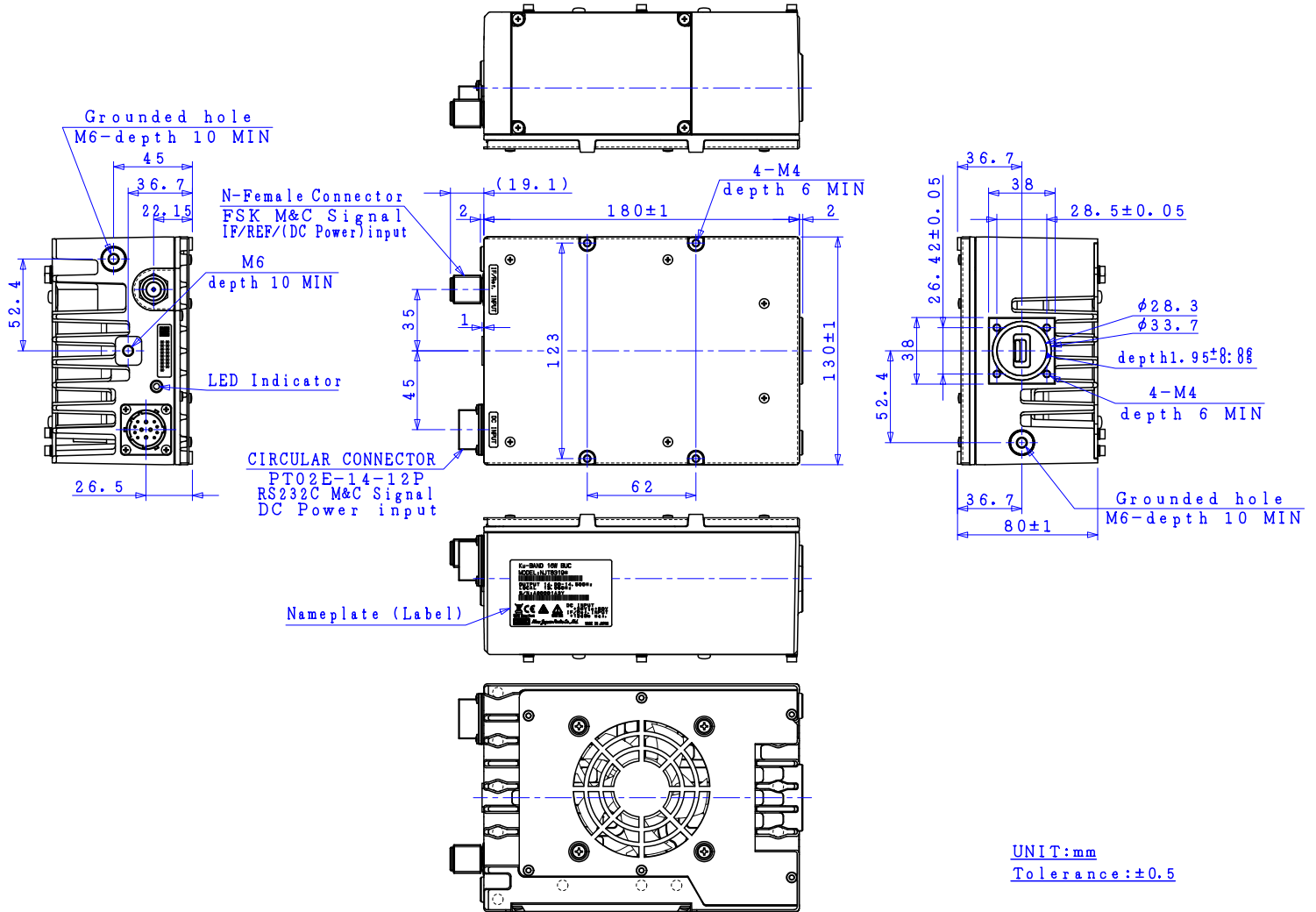
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# Universal/Standard Ku-band 16W BUC

## MODEL No. NJT8319 series

### < Outline Drawing >

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



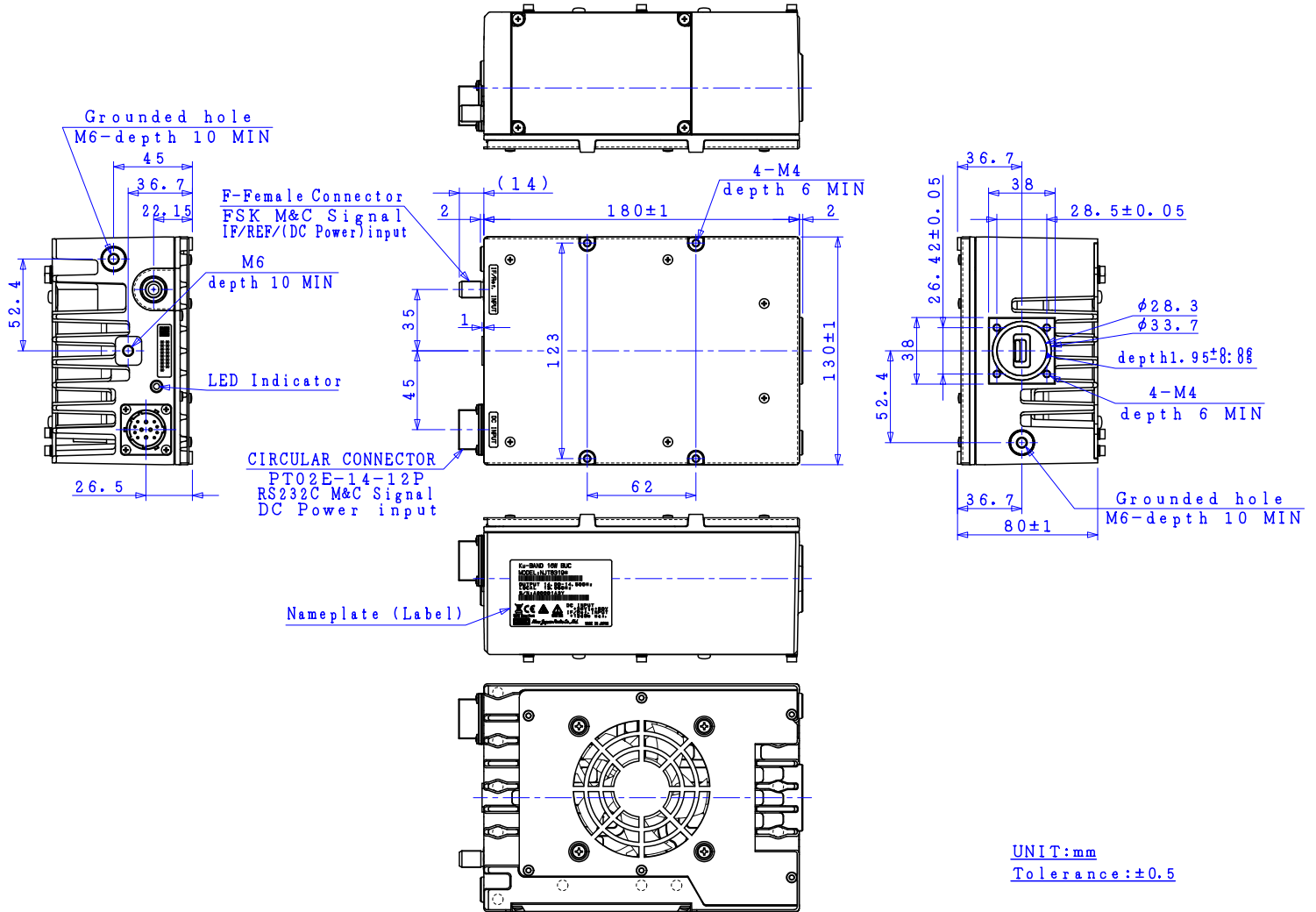
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# Universal/Standard Ku-band **16W** BUC

## MODEL No. **NJT8319** series

### < Outline Drawing >

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



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# ■ Universal/Standard Ku-band 16W BUC

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

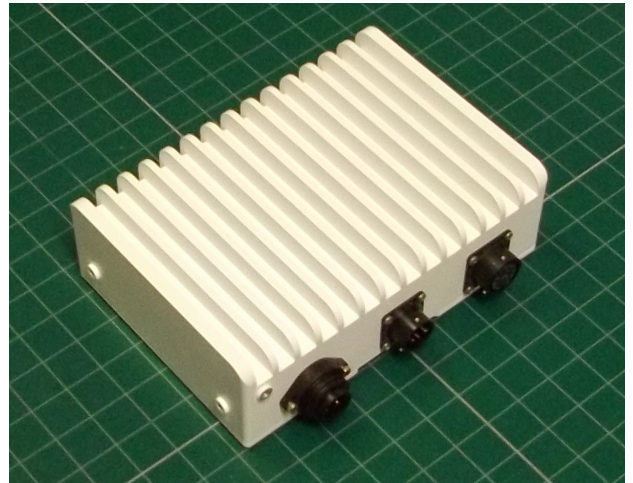
### < Features >

#### \* 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.

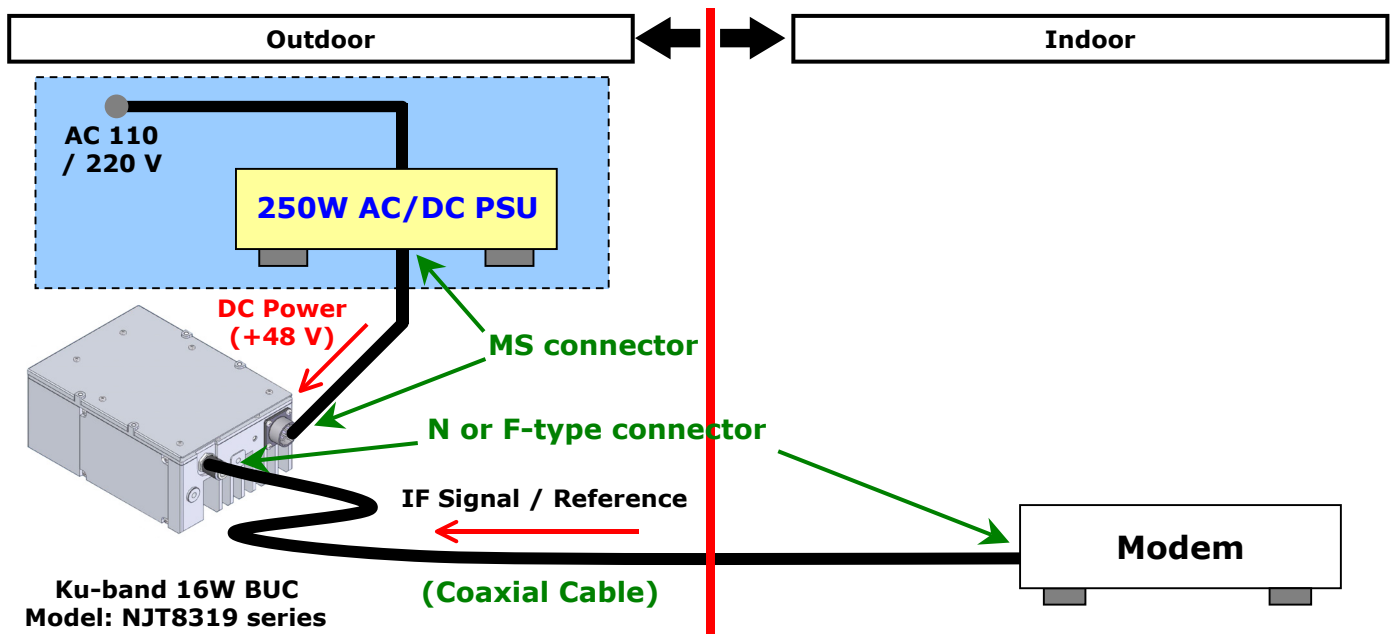
#### \* Compact Size & Light Weight

- 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.



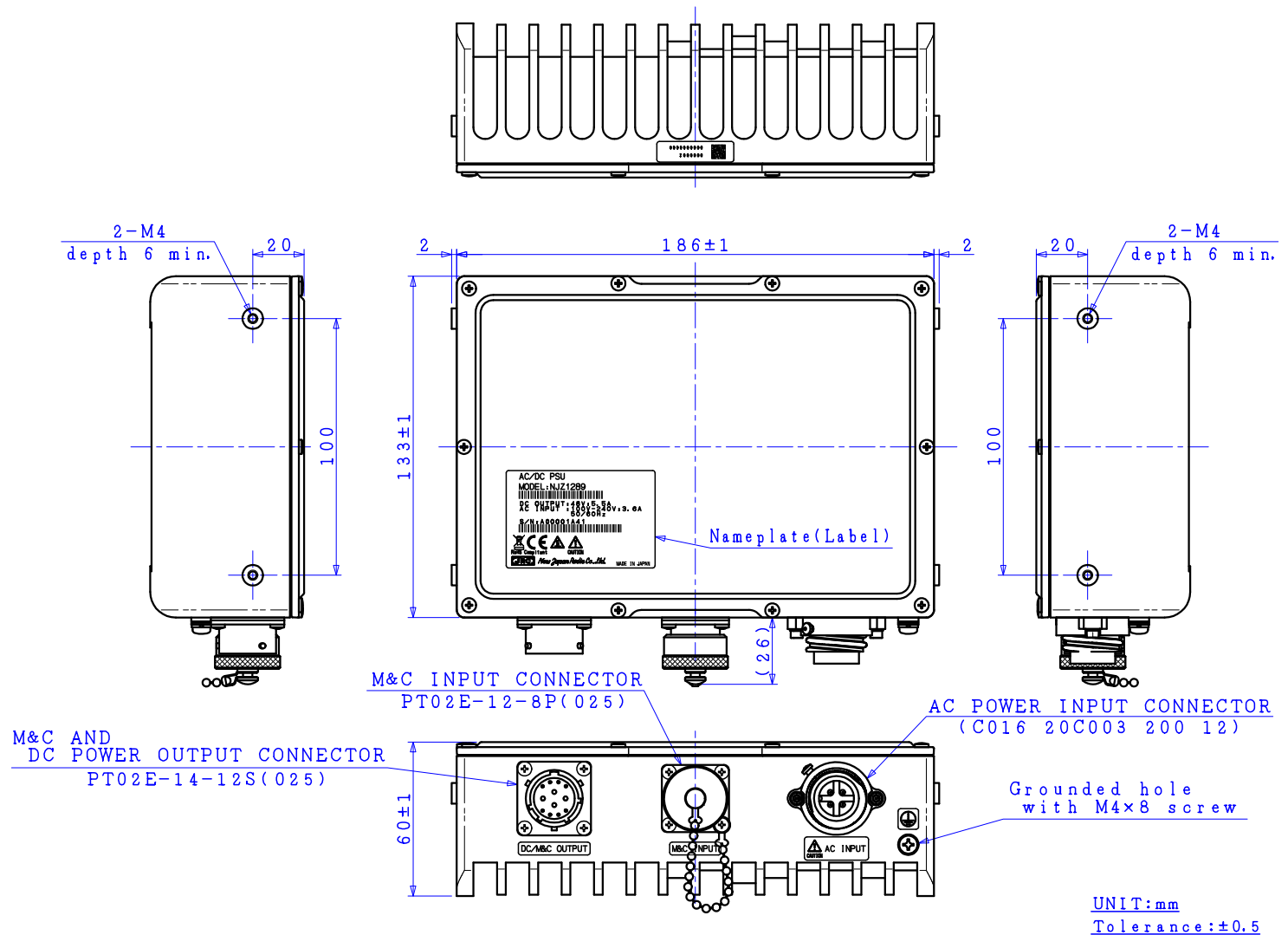
# ■ Universal/Standard Ku-band **16W** BUC

## 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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