

■ 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						
NJT8319NMA					N-type	+36 to +60 V DC Power	IF Connector	FSK M&C			
NJT8319FMA					F-type		MS Connector * Note 2 (IF Connector Option)				
NJT8319NK					N-type	AC Power Option	MS Connector * Note 1				
NJT8319FK					F-type						
NJT8319NMK					N-type	+36 to +60 V DC Power	IF Connector	RS-232C M&C			
NJT8319FMK					F-type		MS Connector * Note 2 (IF Connector Option)				
NJT8319NMKA					N-type	AC Power Option	MS Connector * Note 1				
NJT8319FMKA					F-type						
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	MS Connector * Note 2 (IF Connector Option)	N/A
NJT8319FMR								F-type		MS Connector * Note 2 (IF Connector Option)	
NJT8319NMRA								N-type	AC Power Option	MS Connector * Note 1	
NJT8319FMRA								F-type			
NJT8319UN	N-type	+36 to +60 V DC Power	IF Connector					FSK M&C			
NJT8319UF	F-type		MS Connector * Note 2 (IF Connector Option)								
NJT8319UNM	N-type	AC Power Option	MS Connector * Note 1								
NJT8319UFM	F-type										
NJT8319UNMA	N-type	+36 to +60 V DC Power	IF Connector					RS-232C M&C			
NJT8319UFMA	F-type		MS Connector * Note 2 (IF Connector Option)								
NJT8319UNK	N-type	AC Power Option	MS Connector * Note 1								
NJT8319UFK	F-type										
NJT8319UNMK	N-type	+36 to +60 V DC Power	IF Connector					N/A			
NJT8319UFMK	F-type		MS Connector * Note 2 (IF Connector Option)								
NJT8319UNMKA	N-type	AC Power Option	MS Connector * Note 1								
NJT8319UFMKA	F-type										
NJT8319UNMR					N-type	+36 to +60 V DC Power	MS Connector * Note 2 (IF Connector Option)	RS-232C M&C			
NJT8319UFMR					F-type		MS Connector * Note 2 (IF Connector Option)				
NJT8319UNMRA					N-type	AC Power Option	MS Connector * Note 1				
NJT8319UFMRA					F-type						

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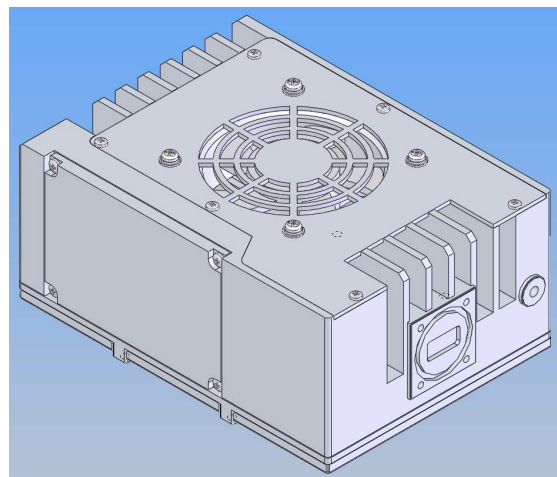
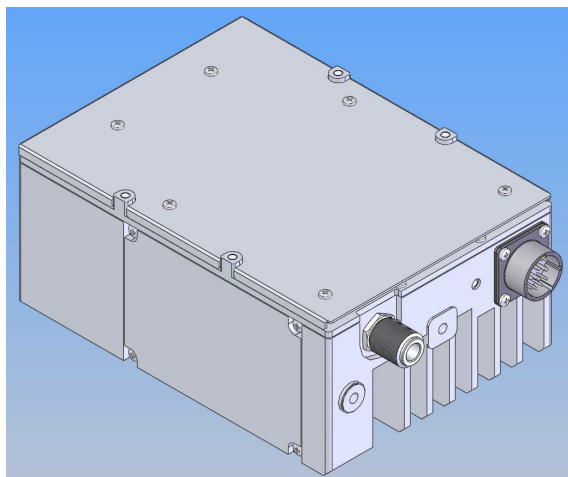
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■ Universal/Standard Ku-band **16W** BUC

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.	+42 dBm min. over temperature	
ACPR	-28 dBc typ. @ $P_{out} \leq +41$ dBm	
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		-140 dBc/Hz max. @ 10 kHz
	-60 dBc/Hz max. @ 100 Hz	
	-70 dBc/Hz max. @ 1 kHz	
	-80 dBc/Hz max. @ 10 kHz	
	-90 dBc/Hz max. @ 100 kHz	
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
		-156 dBm/Hz max. @10.95 to 12.25 GHz
	[Standard Ku-band]	-125 dBm/Hz max. @12.25 to 12.75 GHz
		Tx: 14.0 to 14.5 GHz
Input V.S.W.R.	2 : 1 max.	
	2 : 1 max.	
Power Requirement	+36 to +60 VDC Power	
Power Consumption	140 W typ. @ No If signal	
	160 W typ., 180 W max. @ $P_{out} = +42$ 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	180 mm (L) x 130 mm (W) x 80 mm (H)	
(without Interface Connectors)	[7.09" (L) x 5.12" (W) x 3.15" (H)]	
Weight	2.4kg [5.3 lbs]	

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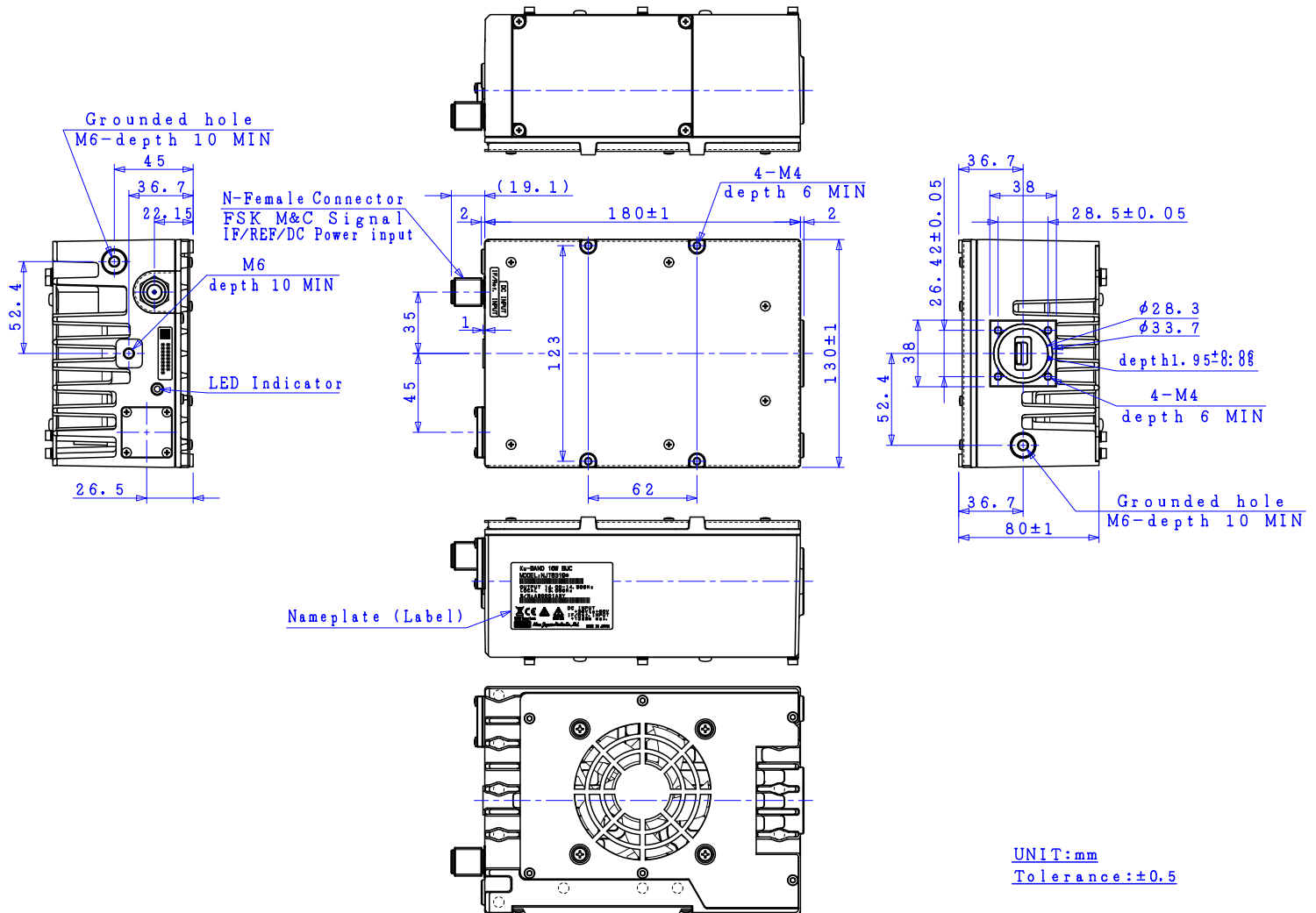
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< Outline Drawing >

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

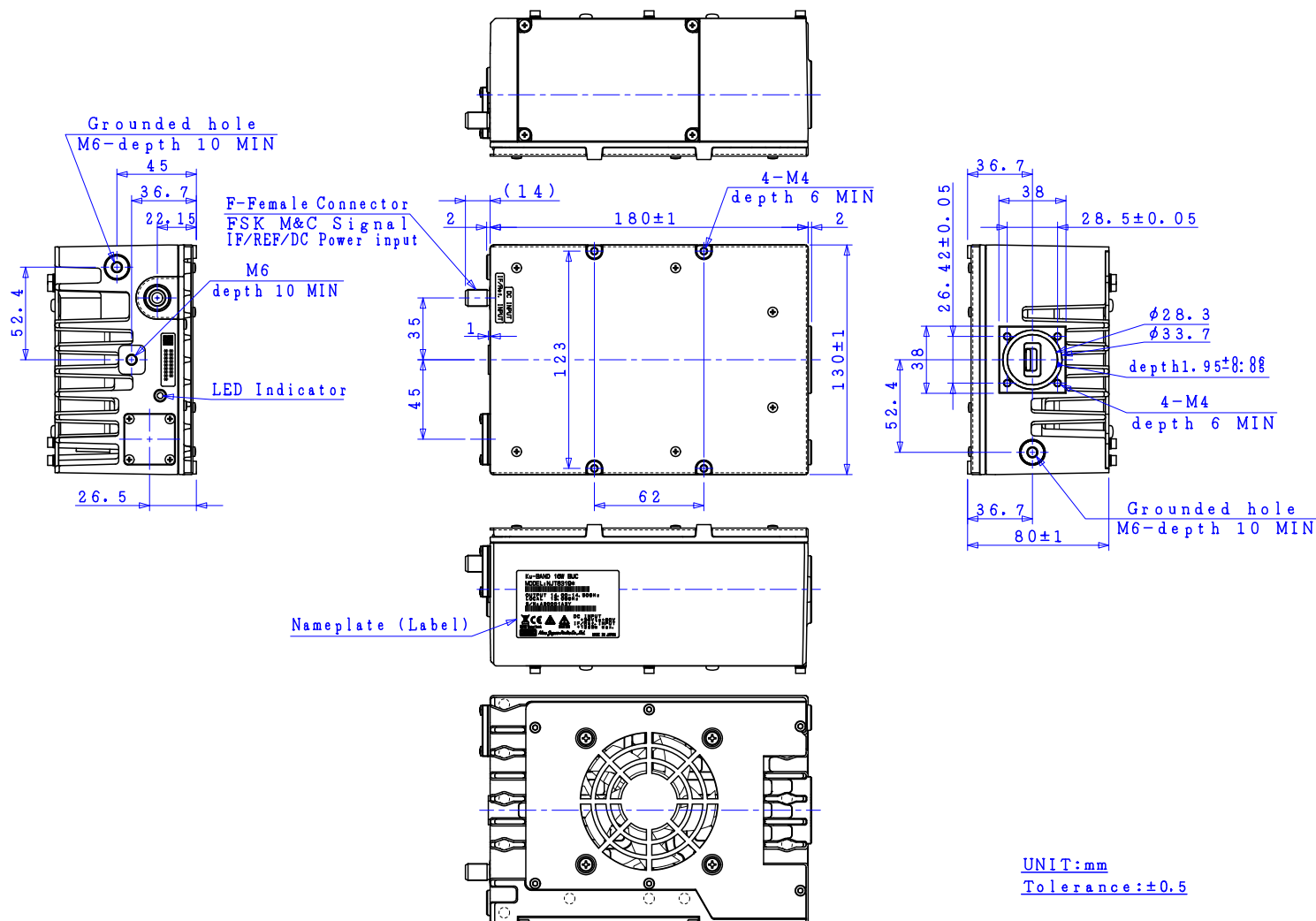


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< Outline Drawing >

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



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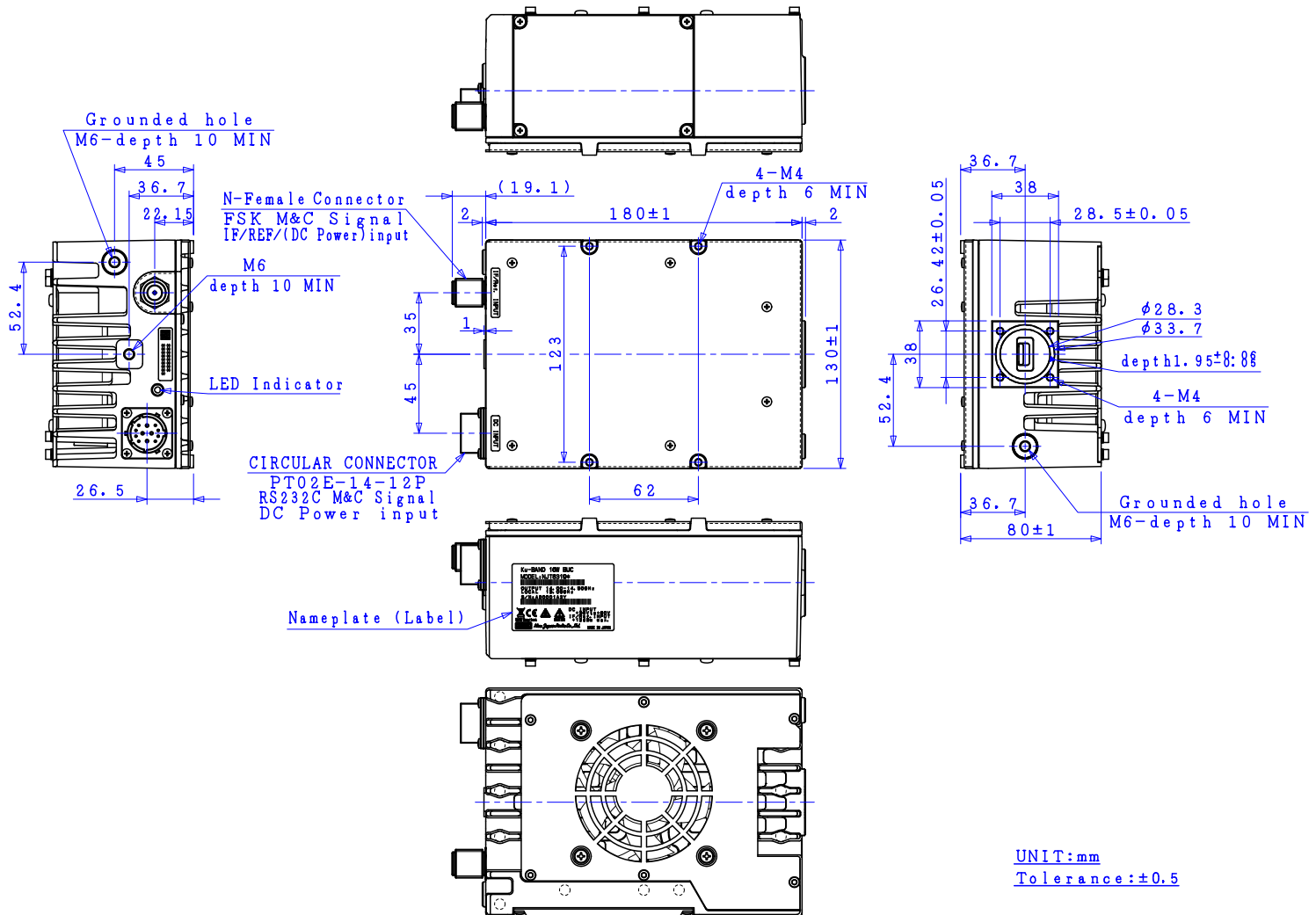
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< Outline Drawing >

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



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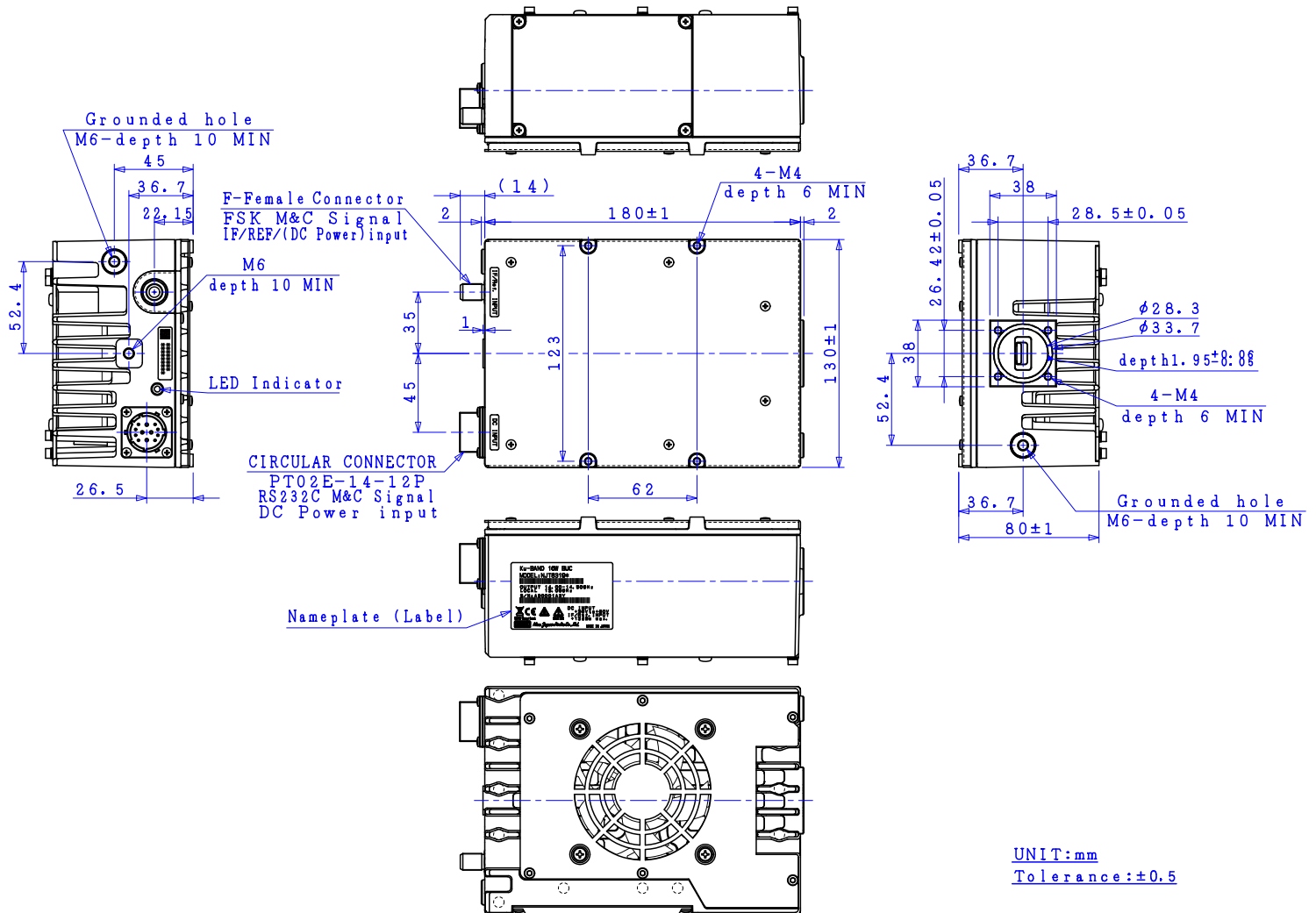
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< Outline Drawing >

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)**

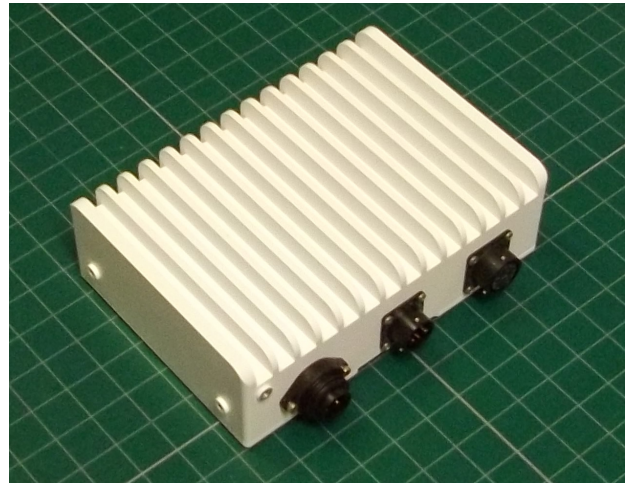
< Features >

* **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.

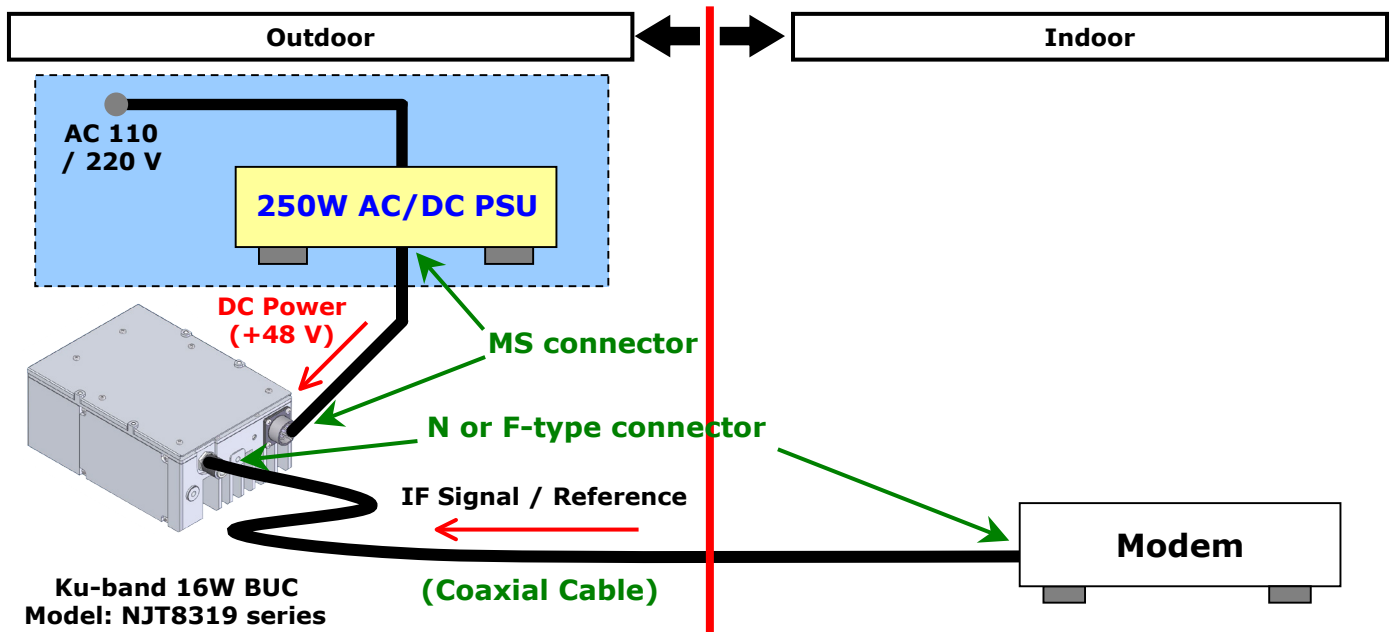
* **Compact Size & Light Weight**

- 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.

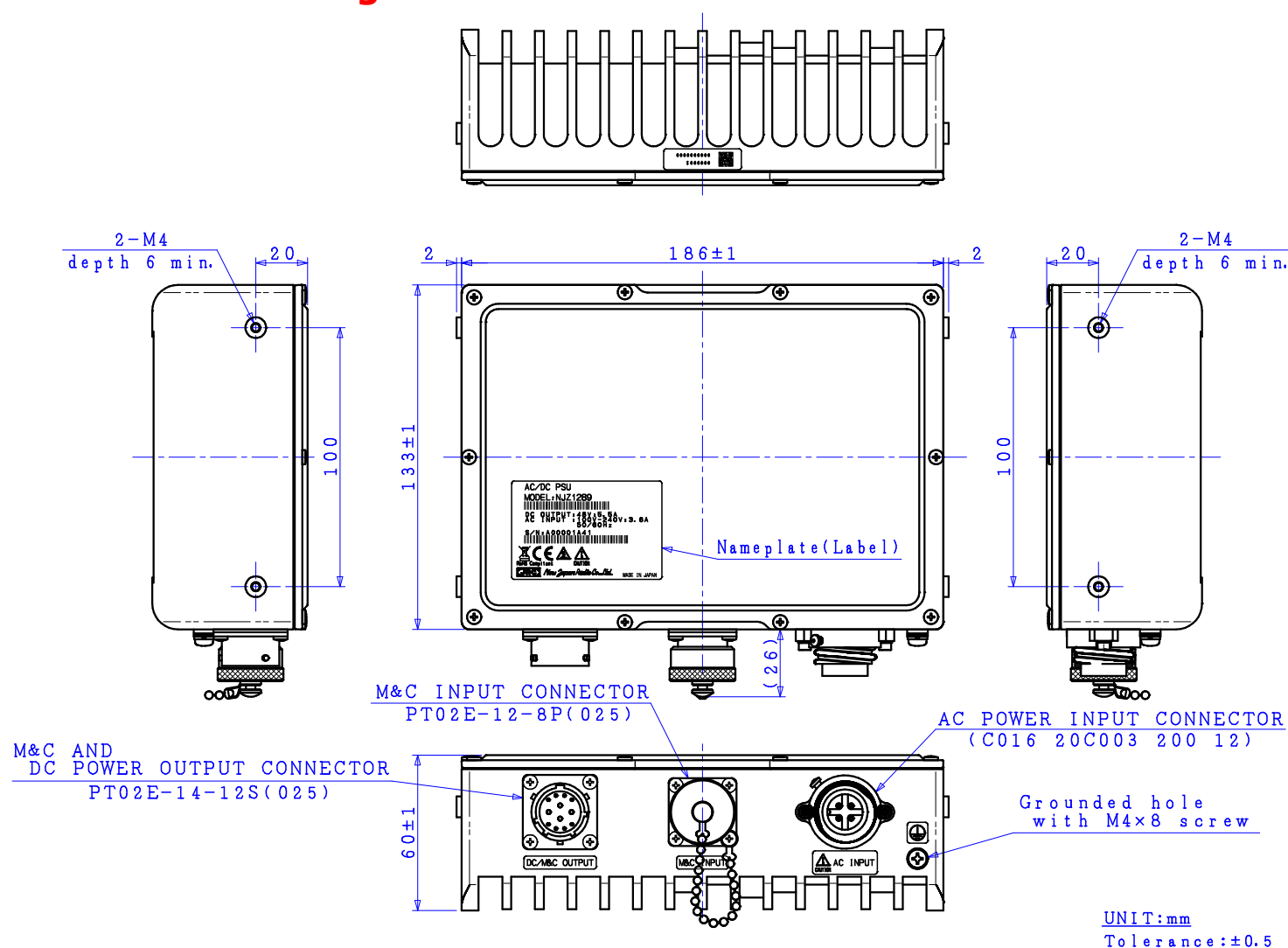
■ Universal/Standard Ku-band **16W** BUC

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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