

# Universal/Standard Ku-band **GaN** 25W BUC

## MODEL No. **NJT8370** series

### < Features >

- \* **GaN** Technology Amplifier Inside
- \* **High Temperature Operating**
  - Operation Temperature Range: -40 to +75 °C
- \* **High Efficiency Output Power**
  - Saturation Output Power: +44.0 dBm
  - ACPR: -30 dBc @ Pout = +42.0 dBm
  - Power Consumption: 200 W
- \* **AC Power Operation Option**
- \* **Monitor & Control Option**
  - FSK Communications M&C
  - RS-232C Interface Serial M&C
- \* **Compact Size & Light Weight**
  - Dimension: 180 (L) x 130 (W) x 80 (H) mm
  - Weight: 2.5 kg

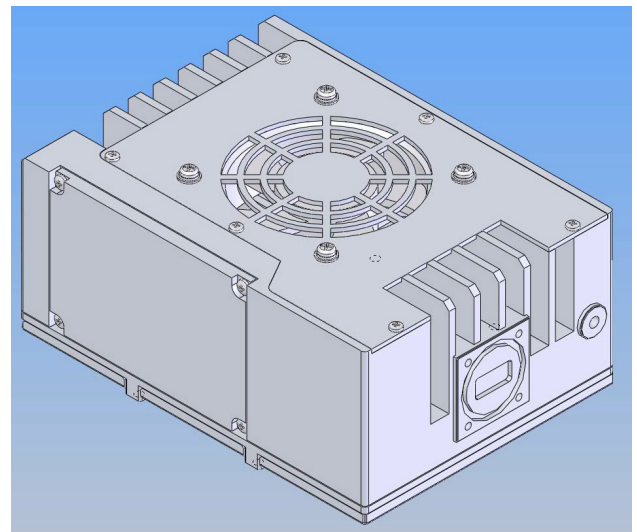
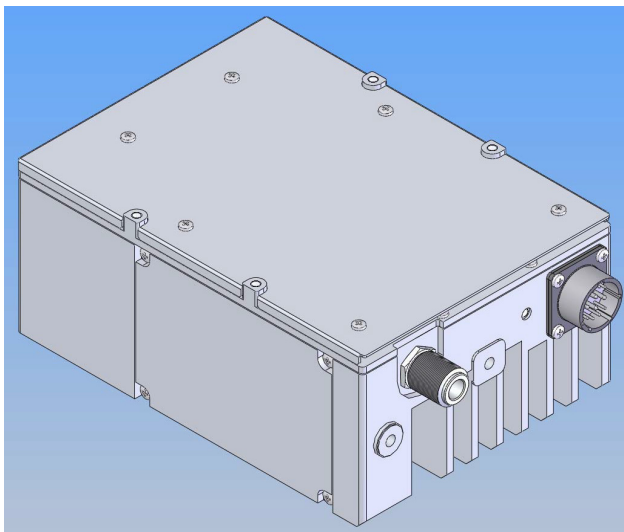


### < Line-Up >

| Model No.    | RF Frequency                             | Local Frequency | IF Frequency             | Output Power               | IF Connector | Power Supply | Port for Voltage Input   | M&C Option |                |
|--------------|------------------------------------------|-----------------|--------------------------|----------------------------|--------------|--------------|--------------------------|------------|----------------|
| NJT8370NMK   | 14.0 to 14.5 GHz<br>(Standard Ku-band)   | 13.05 GHz       | 950 to 1,450 MHz         | 25W Saturation<br>(+44dBm) | N-type       | +36 to +60 V | MS Connector             | FSK<br>M&C |                |
| NJT8370FMK   |                                          |                 |                          |                            | F-type       | DC Power     |                          |            |                |
| NJT8370NMKA  |                                          |                 |                          |                            | N-type       | AC Power     | MS Connector<br>* Note 1 |            |                |
| NJT8370FMKA  |                                          |                 |                          |                            | F-type       |              |                          |            |                |
| NJT8370NMR   |                                          |                 |                          |                            | N-type       | +36 to +60 V | MS Connector             |            | RS-232C<br>M&C |
| NJT8370FMR   |                                          |                 |                          |                            | F-type       | DC Power     |                          |            |                |
| NJT8370NMRA  | N-type                                   | AC Power        | MS Connector<br>* Note 1 |                            |              |              |                          |            |                |
| NJT8370FMRA  | F-type                                   |                 |                          |                            |              |              |                          |            |                |
| NJT8370UNMK  | 13.75 to 14.5 GHz<br>(Universal Ku-band) | 12.80 GHz       | 950 to 1,700 MHz         |                            | N-type       | +36 to +60 V | MS Connector             | FSK<br>M&C |                |
| NJT8370UFMK  |                                          |                 |                          |                            | F-type       | DC Power     |                          |            |                |
| NJT8370UNMKA |                                          |                 |                          |                            | N-type       | AC Power     | MS Connector<br>* Note 1 |            |                |
| NJT8370UFMKA |                                          |                 |                          |                            | F-type       |              |                          |            |                |
| NJT8370UNMR  |                                          |                 |                          | N-type                     | +36 to +60 V | MS Connector | RS-232C<br>M&C           |            |                |
| NJT8370UFMR  |                                          |                 |                          | F-type                     | DC Power     |              |                          |            |                |
| NJT8370UNMRA | N-type                                   | AC Power        | MS Connector<br>* Note 1 |                            |              |              |                          |            |                |
| NJT8370UFMRA | 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.

### < Overview >



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

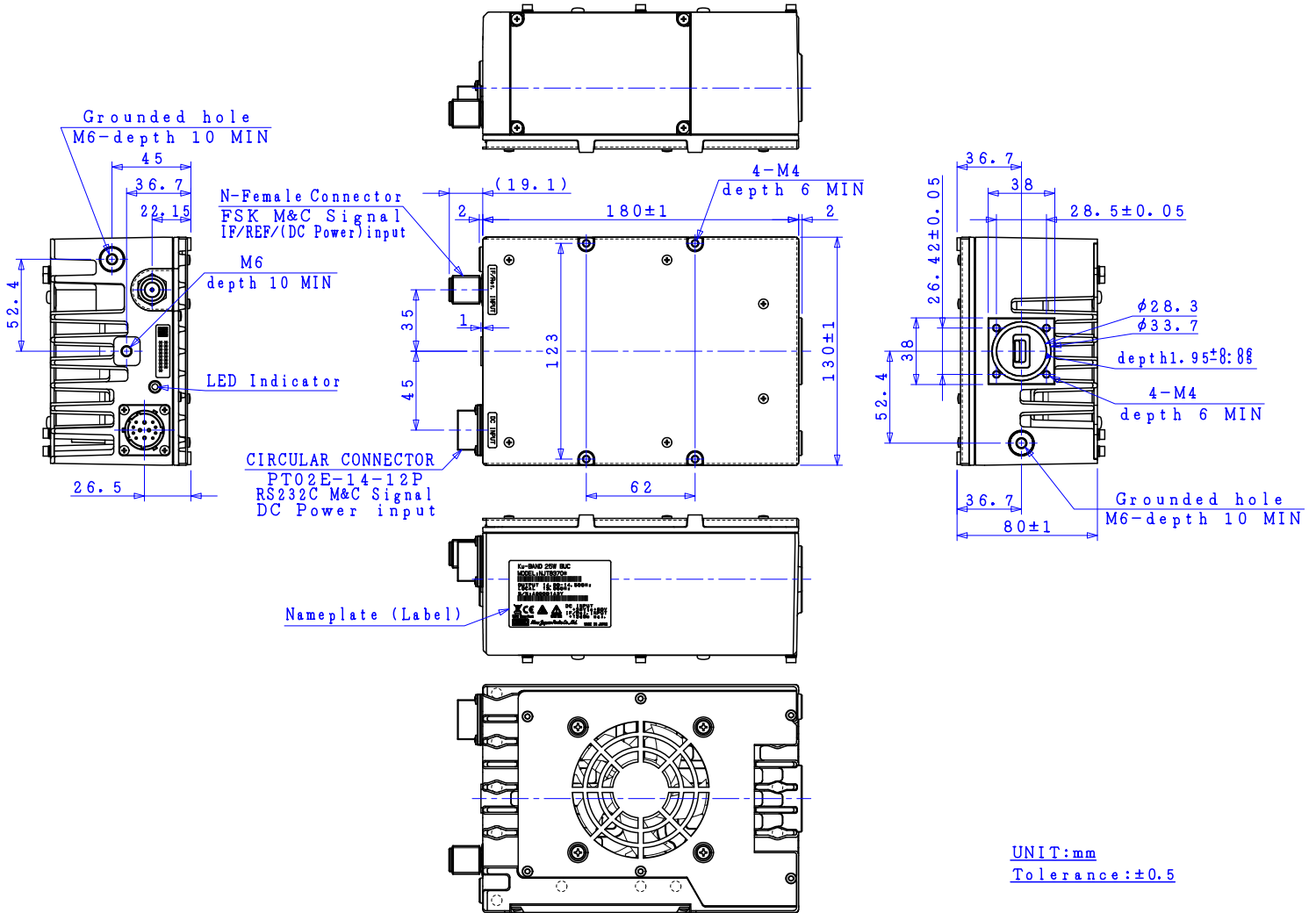
(1/6)  
Rev.01(July 2016) Ku GaN 25W BUC\_NJT8370

### < Specifications >

| Item                                                               | Specifications                                                                                                                                                                                                                                                                         |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Saturation Output Power                                            | +44 dBm min. @ +25 °C<br>+43 dBm min. over temperature                                                                                                                                                                                                                                 |
| Linear Gain                                                        | 72 dB nom., 66 dB min.                                                                                                                                                                                                                                                                 |
| Gain Variation over frequency                                      | Standard Ku-band: 5 dBp-p max. over 500 MHz / 2 dBp-p max. over 36 MHz<br>Universal Ku-band: 5 dBp-p max. over 750 MHz / 2 dBp-p max. over 36 MHz                                                                                                                                      |
| Gain Stability over temperature                                    | 2 dBp-p typ., 4 dBp-p max.                                                                                                                                                                                                                                                             |
| ACPR                                                               | -30 dBc typ., -26 dBc max.. @ Pout = +42 dBm                                                                                                                                                                                                                                           |
| L.O. Phase Noise                                                   | -60 dBc/Hz max. @ 100 Hz                      -70 dBc/Hz max. @ 1 kHz<br>-80 dBc/Hz max. @ 10 kHz                      -90 dBc/Hz max. @ 100 kHz<br>-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<br>(1) Voltage Range<br>(2) Power Consumption | +36 to +60 VDC<br>120 W typ. @ No IF signal<br>180 W typ. @ Pout=+42dBm<br>200 W typ., 230 W max. @ Psat                                                                                                                                                                               |
| 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 ><br>Interface: FSK Modulation Signal via IF connector<br>Function: Power Monitor / TX On/Off Control / Alarm ... etc<br>< RS-232C Serial M&C ><br>Interface: RS-232C<br>Function: Power Monitor / TX On/Off Control / Alarm / Digital Step Attenuator ... etc |
| Temperature Range (ambient)                                        | Operating: -40 to +75 °C (Operation Guarantee)<br>-40 to +60 °C (Performance Guarantee)<br>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)]<br>without interface connector and screws                                                                                                                                                                            |
| Weight                                                             | 2.5 kg [5.5 lbs ]                                                                                                                                                                                                                                                                      |

< **Outline Drawing** >

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

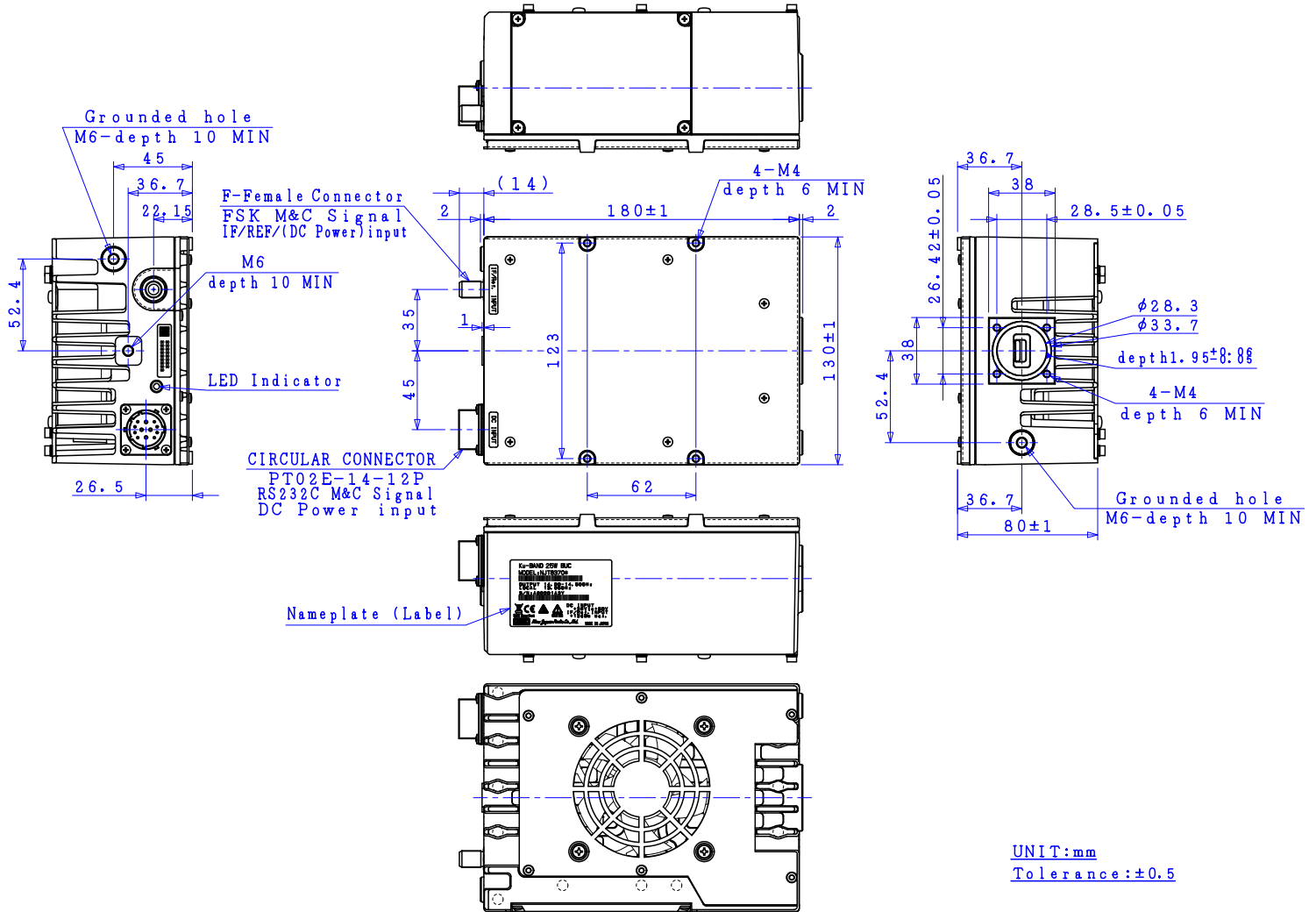


UNIT:mm  
Tolerance:±0.5

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

< **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 **GaN** 25W BUC

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

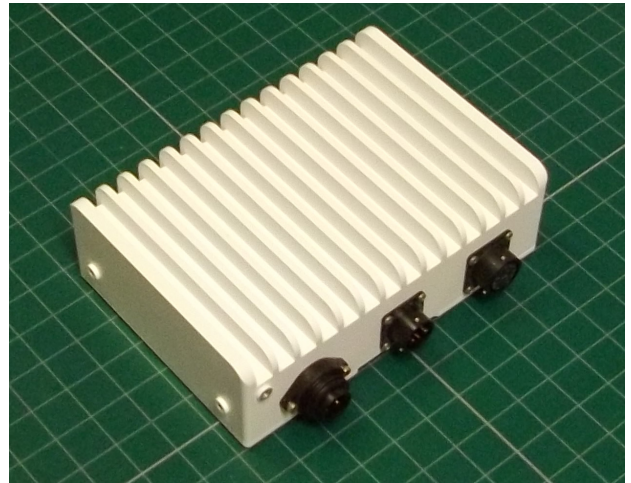
### < Features >

#### \* **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.

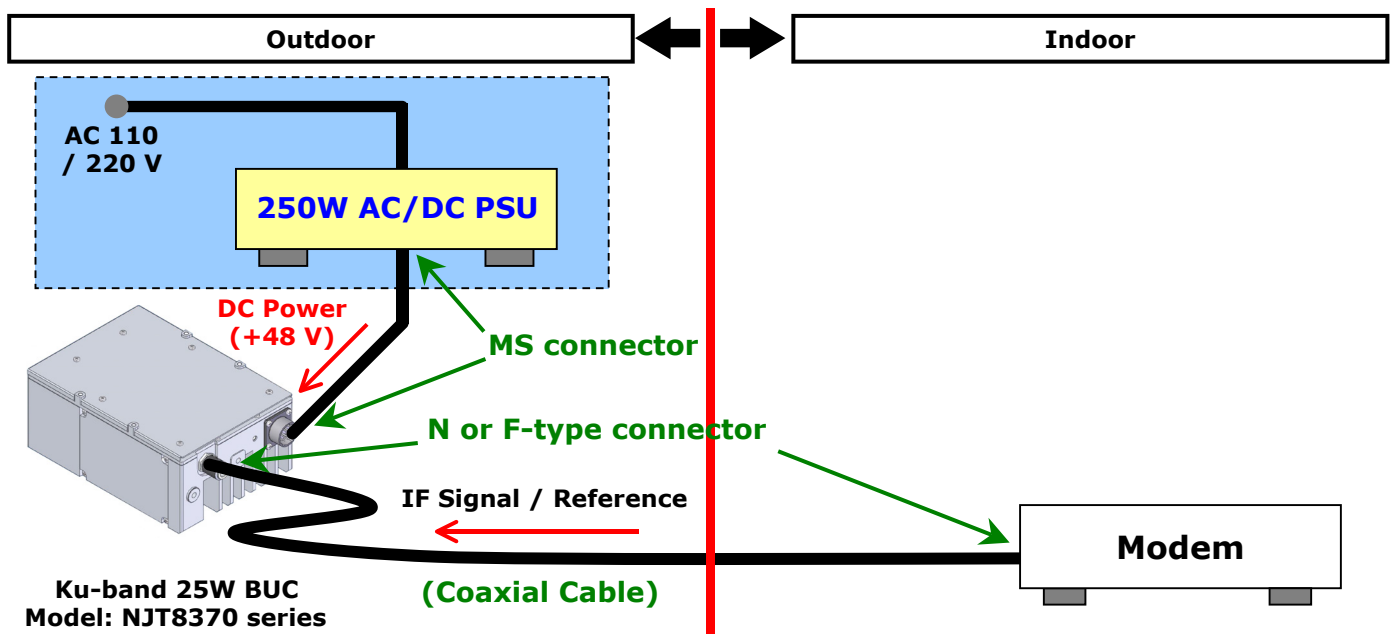
#### \* **Compact Size & Light Weight**

- 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 25W 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.

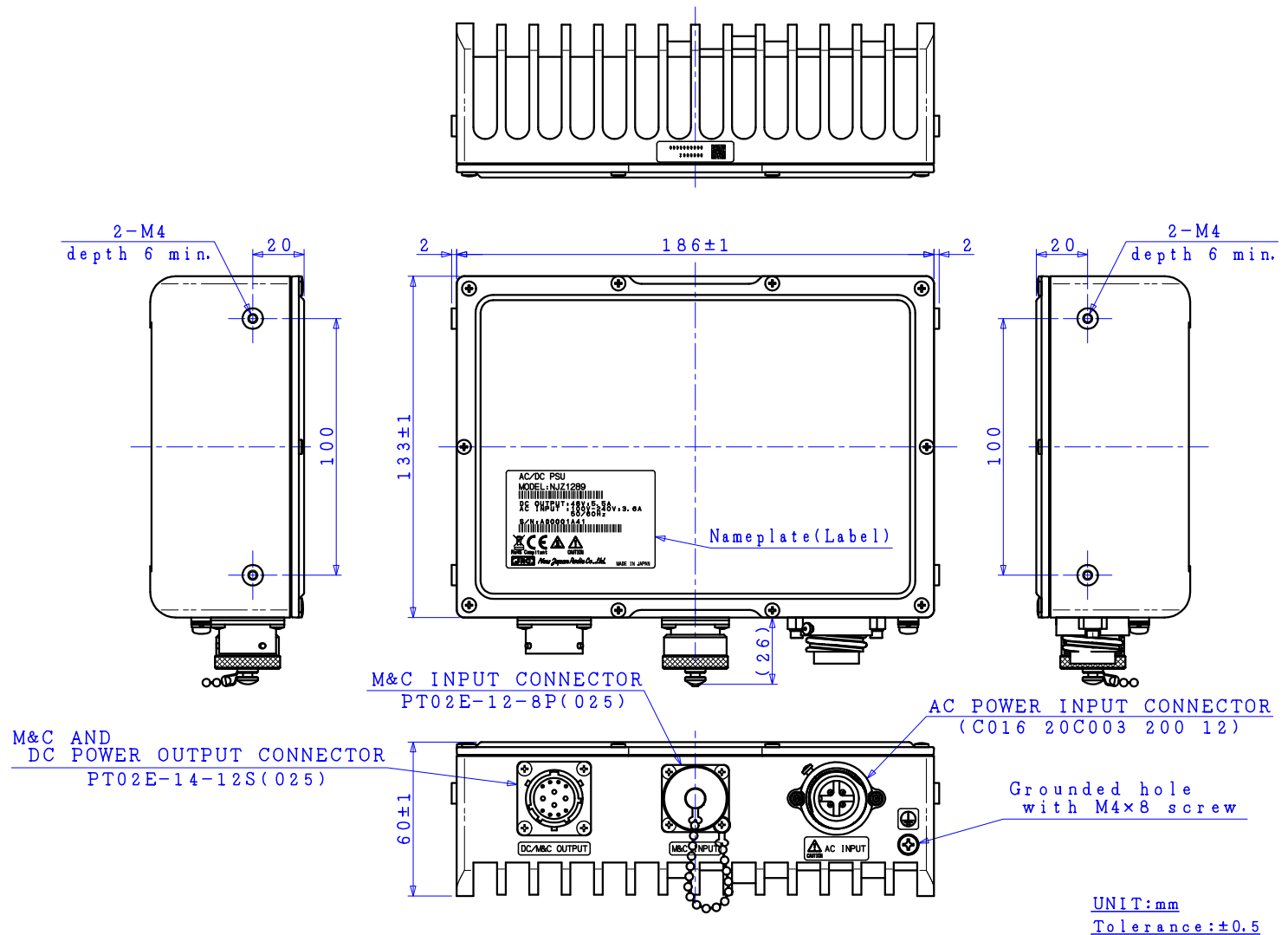
# ■ Universal/Standard Ku-band **GaN** 25W BUC

## 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<br>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)]<br>without interface connector and screws |
| Weight                      | 1.6 kg max. [3.5 lbs max.]                                                                                  |

### < Outline Drawing >



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

(6/6)  
Rev.01(July 2016) Ku GaN 25W BUC\_NJT8370