



# Ku-band 2W Transmitter

## Model No. NJT5016

Type 1(N-type Female Input Connector)

## Model No. NJT5016F

Type 1(F-type Female Input Connector)

# Specifications

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Microwave Components Division

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## Caution

The BUC (Block Up-Converter) is operated at the input voltage of +15 to +24 V dc.  
Be careful not to input a voltage over the above range.



## Note

On the BUC, the platy filter at the output RF waveguide; so-called “Iris filter” with receive-band rejection performance, is equipped in order not to make transmitting signals damage the receiving equipment as much as possible.

Connecting to interface (Waveguide Filter, OMT, Feed horn and so forth), please be aware that a space between the platy filter and the specified interface is needed to keep waveguide length of “quarter lambda g” at least.

If such a means is not implemented, no sufficient performance may be achieved. And moreover in the worst case, performance may be deteriorated significantly.

Therefore, please scrutinize the total performance after equipping the BUC with the interface (Waveguide Filter, OMT, Feed horn and so forth) at your system.



## 1. Electrical Performance

1-1.	Output Frequency Range	14.0 to 14.5 GHz
1-2.	Input Frequency Range	950 to 1,450 MHz
1-3.	Conversion Type	Single, fixed L.O.
1-4.	L.O. Frequency	13.05 GHz
1-5.	Frequency Sense	Positive
1-6.	Output Power @ 1dB G.C.P.	+33 dBm min. over temp.
1-7.	Linear Gain	53 dB nom.
1-8.	Gain Variation over frequency @ fixed temperature	5 dBp-p max. over 500 MHz 2 dBp-p max. over 36 MHz
1-9.	Gain Stability over temperature @ fixed frequency	5 dBp-p max. 2 dBp-p typ.
1-10.	Requirement for External Reference [Frequency] [Input Power] [Phase Noise]	10 MHz (sine-wave) -5 to +5 dBm @ Input port -125 dBc/Hz max. @ 100 Hz -135 dBc/Hz max. @ 1 kHz -140 dBc/Hz max. @ 10 kHz
1-11.	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 @ 1MHz
1-12.	Spurious [in band] [in receive band]	-50 dBc max. @ 14.0 to 14.5 GHz -70 dBm max. @ 10.95 to 12.75 GHz
1-13.	Receive Band Noise Power	-110 dBm/50kHz max. @10.95 to 12.75 GHz
1-14.	Input Impedance	50 ohms nom. [Model No. NJT5016] 75 ohms nom. [Model No. NJT5016F]
1-15.	Input V.S.W.R.	2 : 1 max
1-16.	Output V.S.W.R.	2 : 1 max.
1-17.	Output Load VSWR for Non Damage	Infinite : 1
1-18.	DC Power Requirement	+15 to +24 VDC 37.5 W max.
1-19.	Mute	Shut off the HPA in case of L.O. unlocked

## 2. Mechanical Specifications

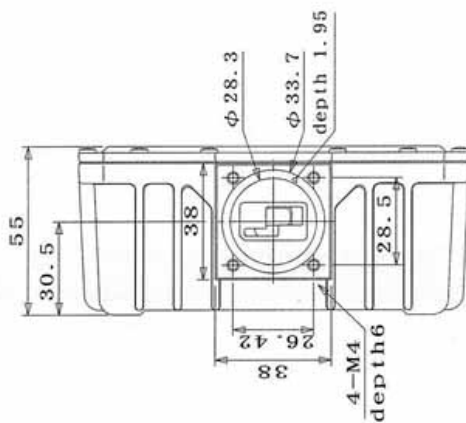
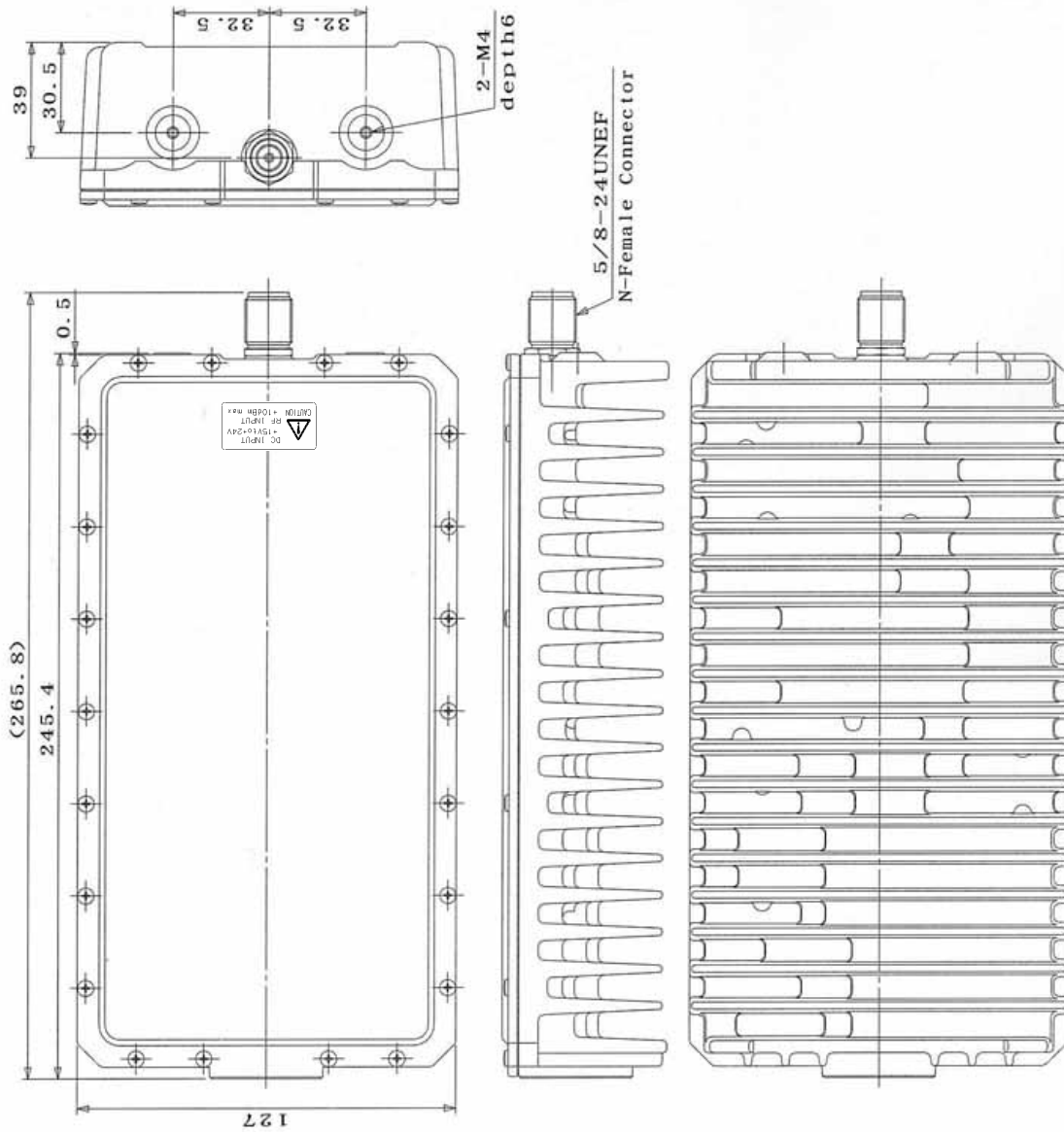
2-1.	Input Interface	N-type, female (50 ohms) [Model No. NJT5016] F-type, female (75 ohms) [Model No. NJT5016F]
2-2.	Output Interface	Waveguide, WR-75
2-3.	Dimension & Housing	245.4 mm (L) * 127 mm (W) * 55 mm (H)
2-4.	Weight	2.3 kg max.
2-5.	Vibration	5 G (3 axis, 50 Hz to 2 kHz) 1 mm p-p (3 axis, 5 to 50 Hz)
2-6.	Shock	30 G (3 axis)

## 3. Environmental Specifications

3-1.	Temperature Range (ambient)	-40 to +55 C (operating) -40 to +75 C (storage)
3-2.	Humidity	0 to 100 %
3-3.	Altitude	10,000 feet

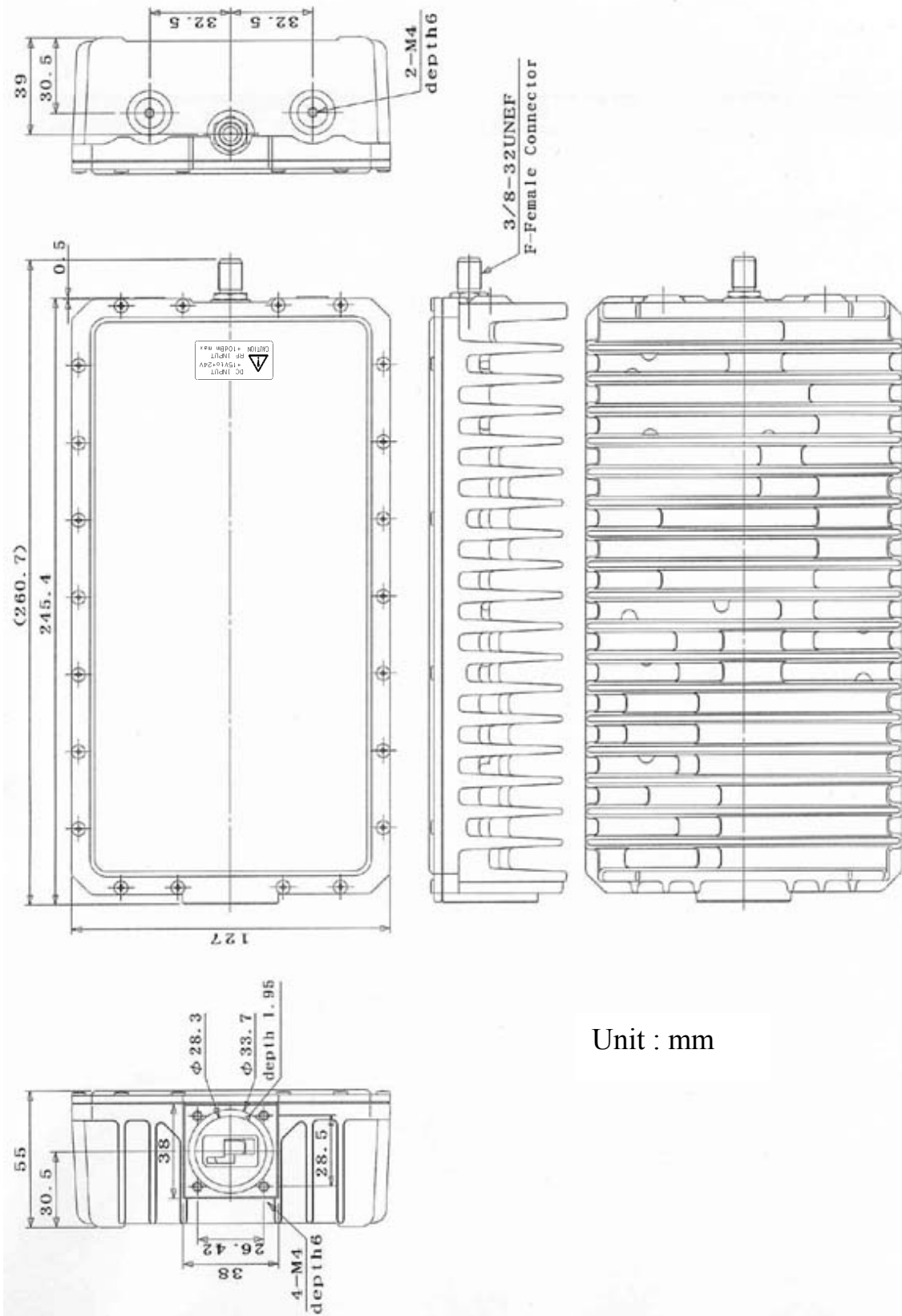
#### 4. Outline Drawing

Type 1 (N-type Female Input Connector) : Model No. NJT5016



Unit : mm

Type 2 (F-type Female Input Connector) : Model No. NJT5016F



Unit : mm