

Full C-band 10W BUC

RF Frequency: 5.85 to 6.725 GHz

Model No. NJT5763 series

RF Frequency : 5.85 to 6.725 GHz
LO Frequency : 4.90 GHz
IF Frequency : 950 to 1,825 MHz
Output Power @ 1dB G.C.P.
: +40 dBm (10W)
IF / Ref. (10MHz) Input:
N-type / F-type, Female Connector
DC Power Input : MS Connector / IF Connector (*)

Specifications

Rev.03 December 1, 2016

*) MS Connector models are available to apply DC voltage via only MS Connector.

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Microwave Division

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 - * Fire Alarm/Intruder Detector
 - * Vehicle Control Equipment (automobile, airplane, railroad, ship, etc.)
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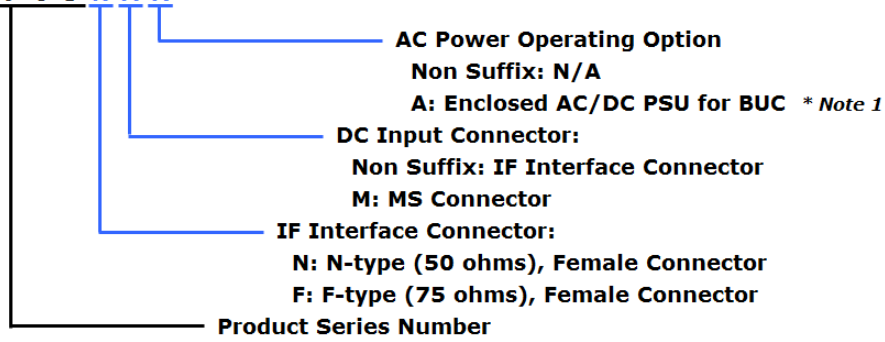
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Model Number

● Numbering System

N J T 5 7 6 3 N M A



● Line-up

Model No.	RF Frequency	Local Frequency	IF Frequency	Output Power @ P1dB	IF Connector	Power Supply	Port for Voltage Input
NJT5763N	5.85 to 6.725 GHz (Full C-band)	4.90 GHz	950 to 1,825 MHz	10 W Linear (+40 dBm min.)	N-type	+18 to +60 V DC Power	IF Connector
NJT5763F					F-type		MS Connector
NJT5763NM					N-type		IF Connector * Note 1
NJT5763FM					F-type		
NJT5763NA					N-type	AC Power	
NJT5763FA					F-type		

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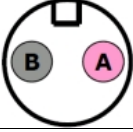
1. Electrical Specifications

#	Items	Specifications
1-1.	Output Frequency Range	5.850 to 6.725 GHz
1-2.	Input Frequency Range	950 to 1,825 MHz
1-3.	Maximum IF Input Level (without damage)	+13 dBm max.
1-4.	Conversion Type	Single, fixed L.O.
1-5.	L.O. Frequency	4.90 GHz
1-6.	Frequency Sense	Positive
1-7.	Output Power @ 1dB G.C.P.	+40 dBm min. over temperature
1-8.	Linear Gain	64 dB nom., 58 dB min.
1-9.	Gain Variation over frequency @ fixed temperature	5.5 dBp-p max. over 875 MHz 2.5 dBp-p max. over 54 MHz
1-10.	Gain Stability over temperature @ fixed frequency	4 dBp-p max. 2 dBp-p typ.
1-11.	IM3	-24 dBc typ. @ total power <= +40 dBm - 3 dB
1-12.	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
1-13.	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
1-14.	Spurious @ Pout = +40 dBm *Note2 [in band] [in receive and] [Out-of-band]	-50 dBc max. @ 5.850 to 6.725 GHz -70 dBm max. @ 3.400 to 4.200 GHz -50 dBc max.
1-15.	Receive Band Noise Density	-87 dBm/4kHz max. @ 3.400 to 4.200 GHz
1-16.	Input Impedance <N-type Model> <F-type Model>	50 ohms nom. 75 ohms nom.
1-17.	Input V.S.W.R.	2 : 1 max
1-18.	Output V.S.W.R.	2 : 1 max.
1-19.	Output Load VSWR for Non Damage	Infinite : 1
1-20.	DC Power Requirement [Voltage Range] [Power Consumption]	+24 / +48 VDC (+18 to +60 VDC) 65 W typ. @ No IF signal 75 W typ., 85 W max. @ Pout = +40 dBm
1-21.	Mute	Shut off the HPA in case of L.O. unlocked or no 10 MHz reference signal.
1-22.	LED Indicator	GREEN: L.O. locked RED: L.O. unlocked (or no 10 MHz reference signal)

*Note2: The 2nd harmonics level of IF signal should be lower than -60dBc at the IDU and IF signal source output.

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2. Mechanical Specifications

#	Items	Specifications
2-1.	Input Interface [IF Connector] [DC Input]	IF / Ref. Input: N-type, female, 50 ohms F-type, female, 75 ohms IF Connector or MS Connector * Note3 - MS connector - Model: MS3102E 12S-3P Mating connector: MS3106E 12S-3S Assignment:  Pin A: Prime (+24/+48VDC) Pin B: Prime Return
2-2.	Output Interface	Waveguide, CPR-137 with Groove
2-3.	Dimension & Housing	219.5 (L) x 175 (W) x 99 (H) mm [8.64" (L) x 6.89" (W) x 3.90" (H)]
2-4.	Weight	3.2 kg typ., 3.3 kg max. [7.0 lbs typ., 7.3 lbs max.]

*Note3: MS Connector models are available to apply DC voltage via either MS Connector or IF Connector.

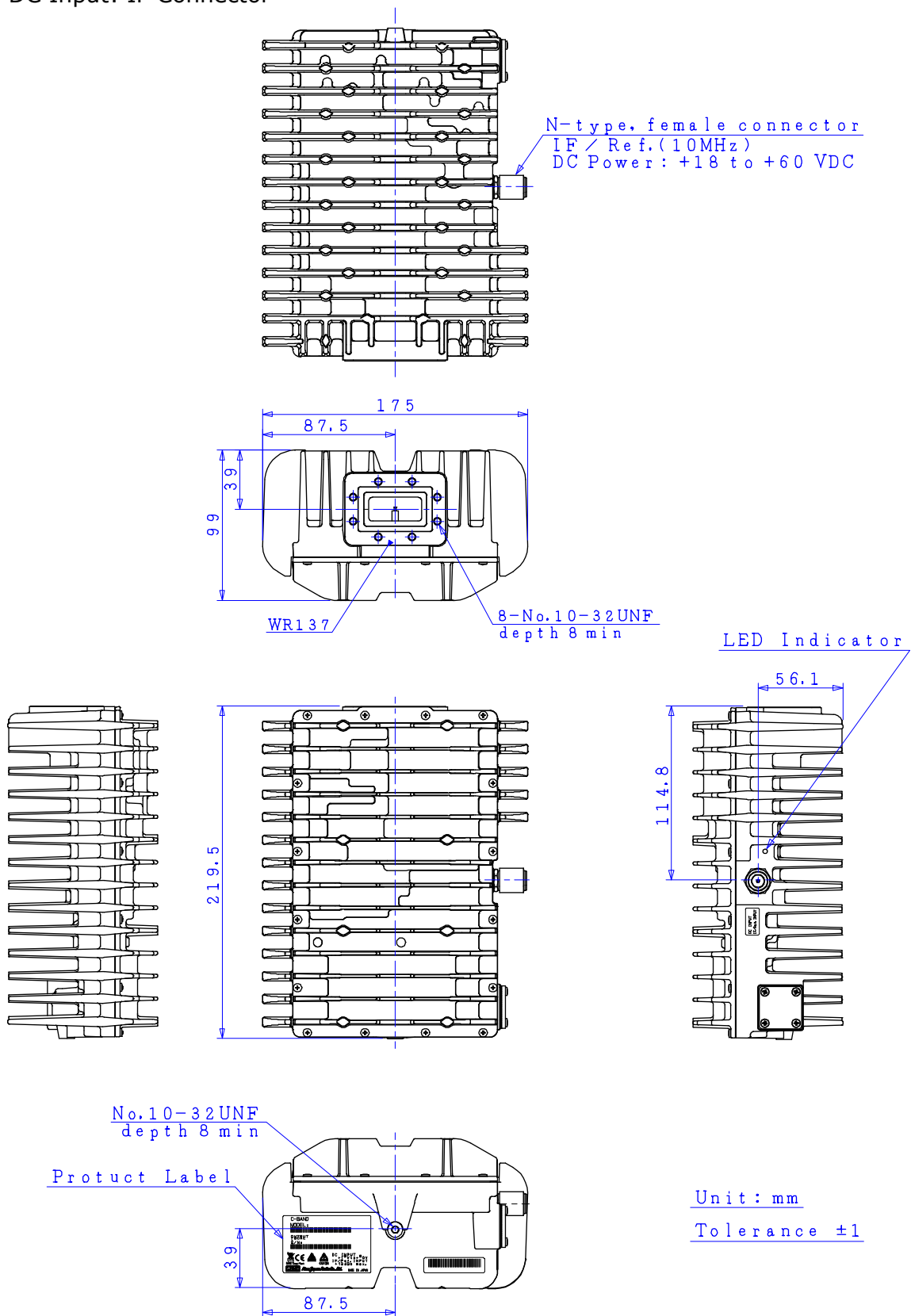
3. Environmental Specifications

#	Items	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	15,000 feet
3-4.	Vibration	5 G [49.03 m/s ²] (3 axis, 50 Hz to 2 kHz) 1 mm p-p (3 axis, 5 to 50 Hz)
3-5.	Shock	30 G [294.20 m/s ²] (3 axis)
3-6.	Waterproof / Dustproof (IP Code)	IP 67
3-7.	Regulations	EU Directive (CE Marking) EMC (2004/108/EC) RoHS (2011/65/EU) Safety: EN60950-1
3-8.	Comply with RoHS (Restricting the use of Hazardous Substances) directives	

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4. Outline Drawing

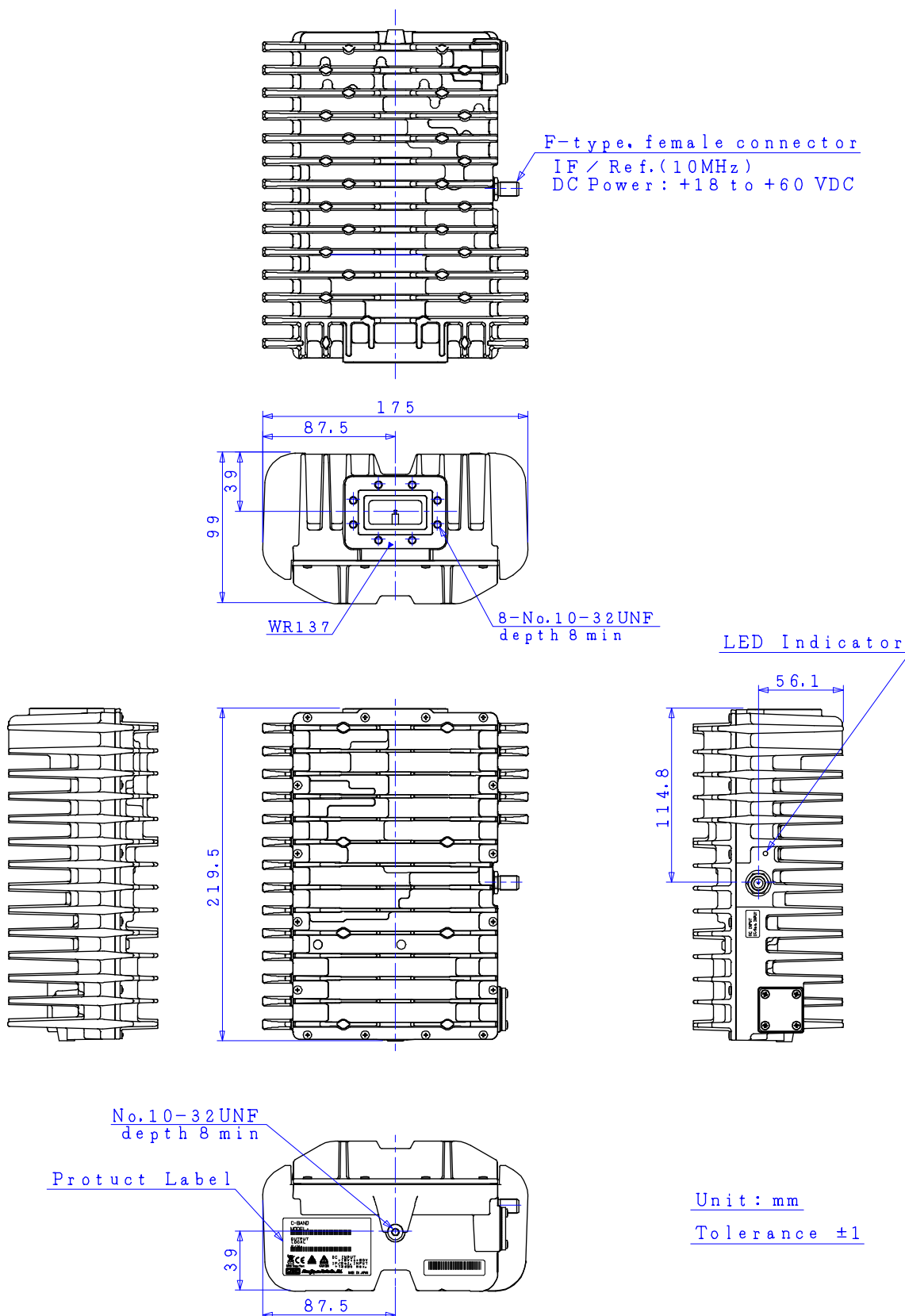
- IF / Ref. Input: N-type Female Connector
- DC Input: IF Connector



Unit: mm
Tolerance ±1

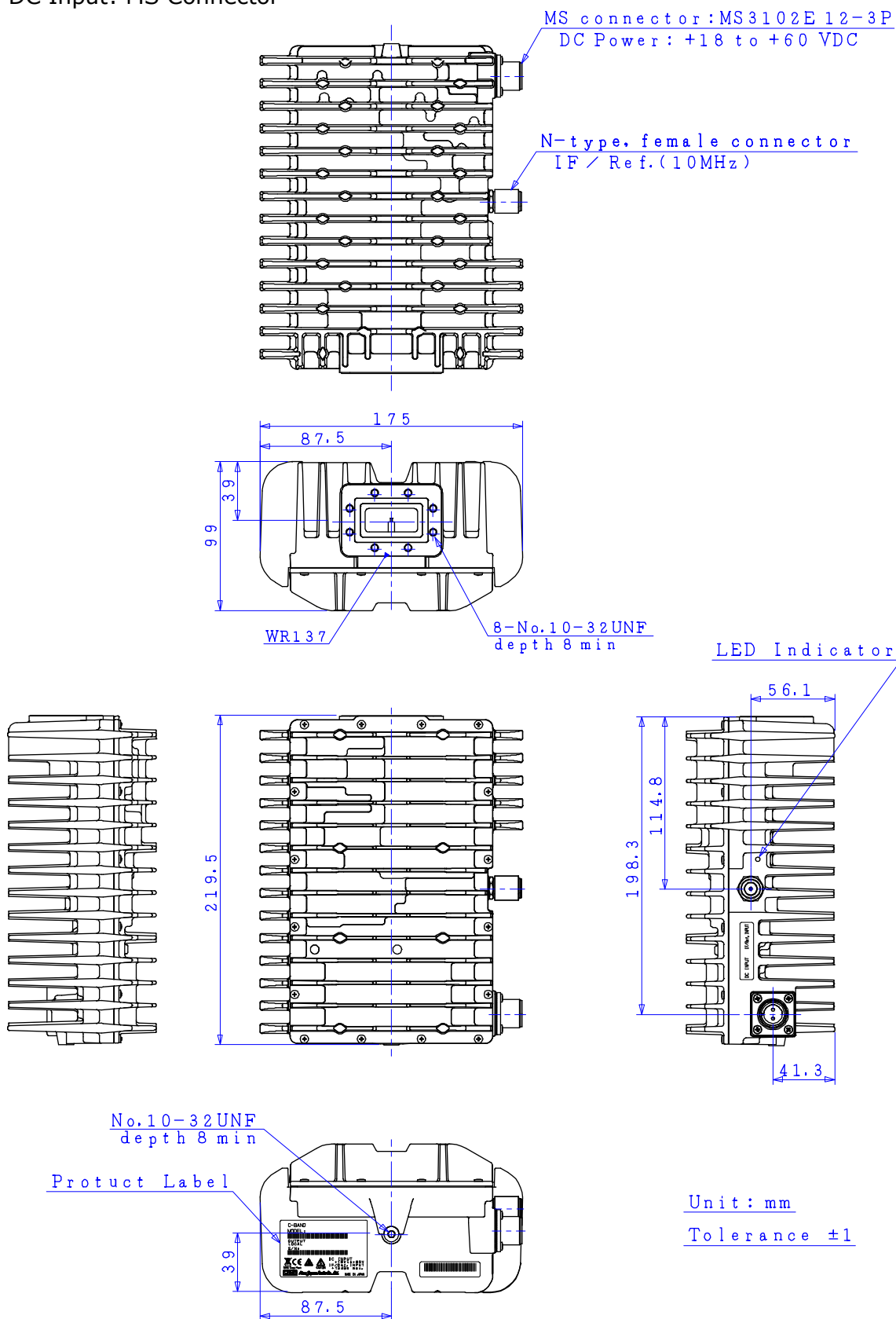
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- IF / Ref. Input: F-type Female Connector
- DC Input: IF Connector



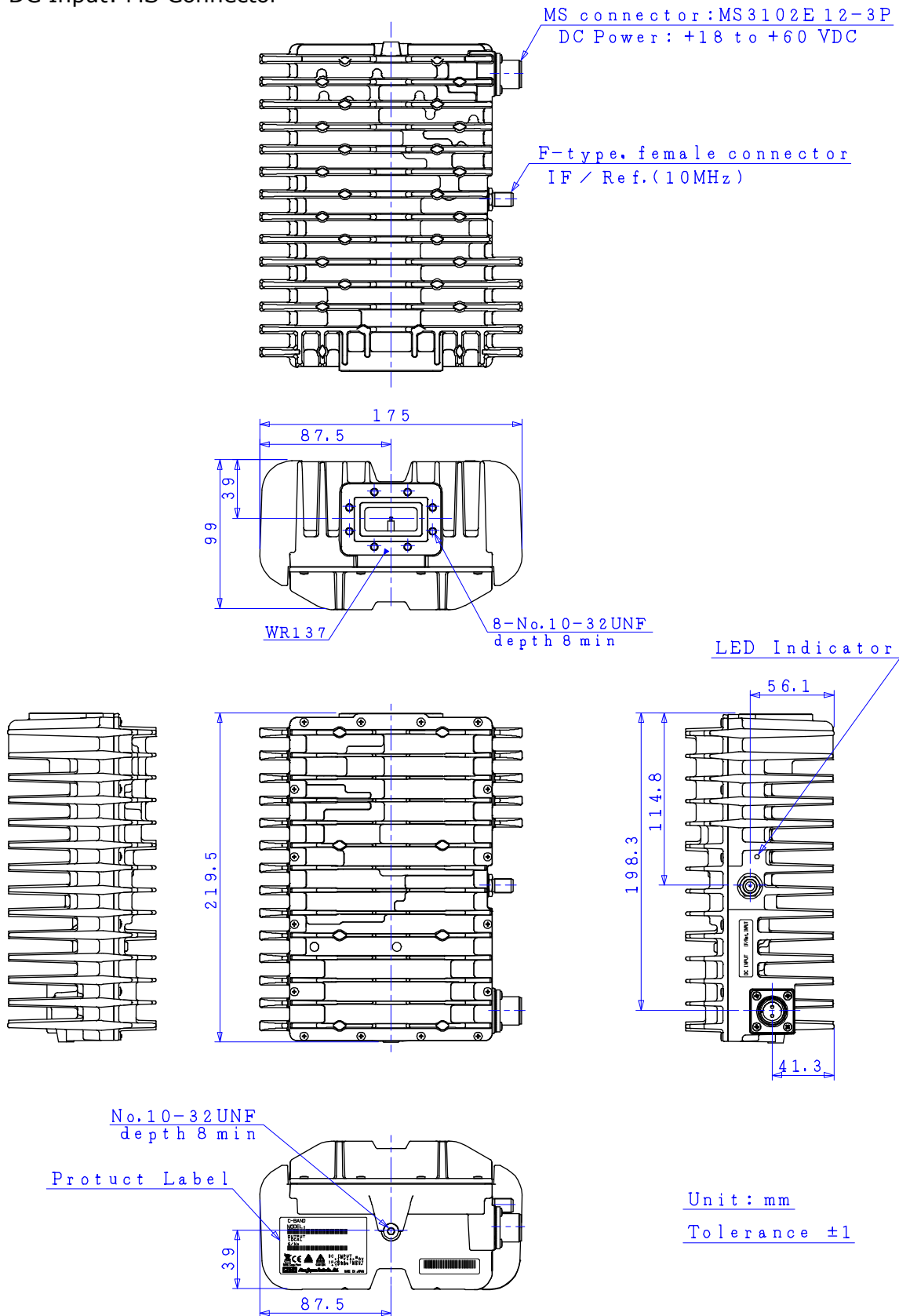
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- IF / Ref. Input: N-type Female Connector
- DC Input: MS Connector



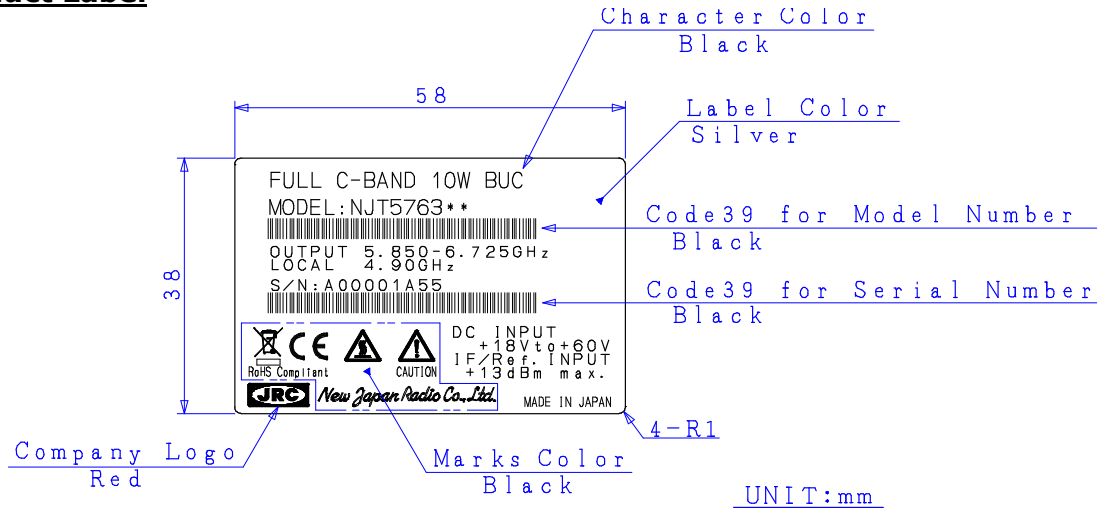
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- IF / Ref. Input: F-type Female Connector
- DC Input: MS Connector



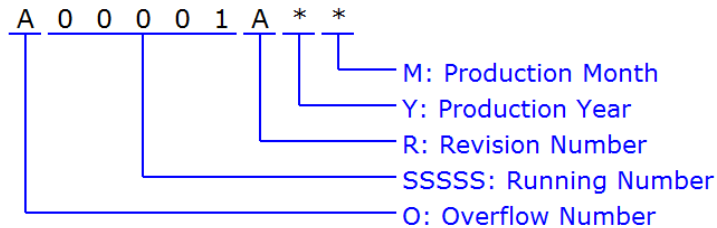
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5. Label Product Label



Definition of Serial Number

Serial Number (OSSSSRYM) - ALPHANUMERIC (9 characters)



O: Overflow Number - ALPHABET (1 character)

"A" to "Z", e.g.: A99999 ⇒ B00001

SSSS: Running Number - NUMBER (5 digits)

"00001" to "99999"

R: Revision Number - ALPHABET (1 character)

"A" to "Z"

Y: Production Year - NUMBER (1 digit)

Calendar Number, e.g.: 2009:9, 2010:0, 2011:1, 2012:2

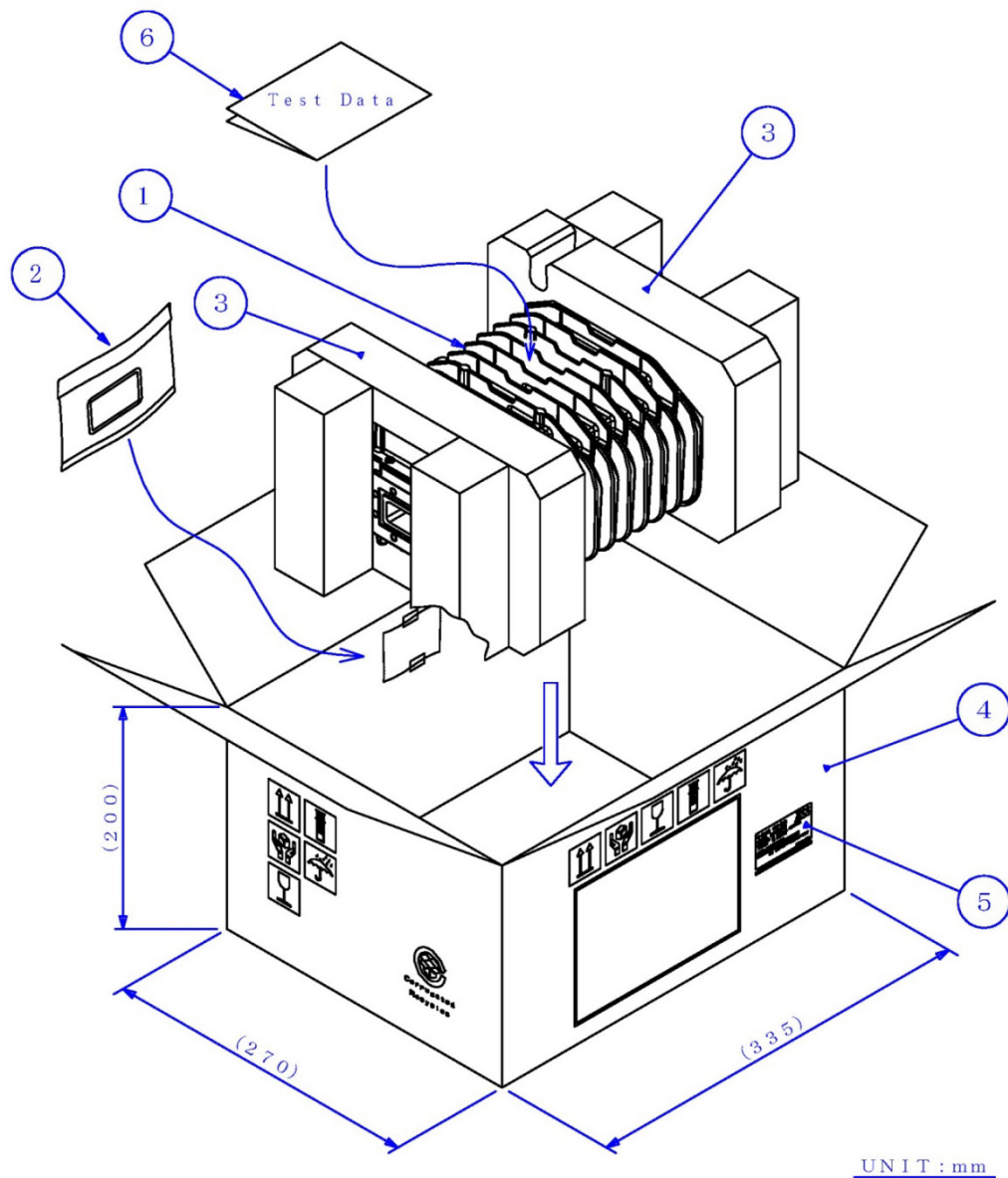
M: Production Month - ALPHANUMERIC (1character)

"1" to "9", "X" as October, "Y" as November, "Z" as December

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6. Package

- Models of IF connector for DC Input

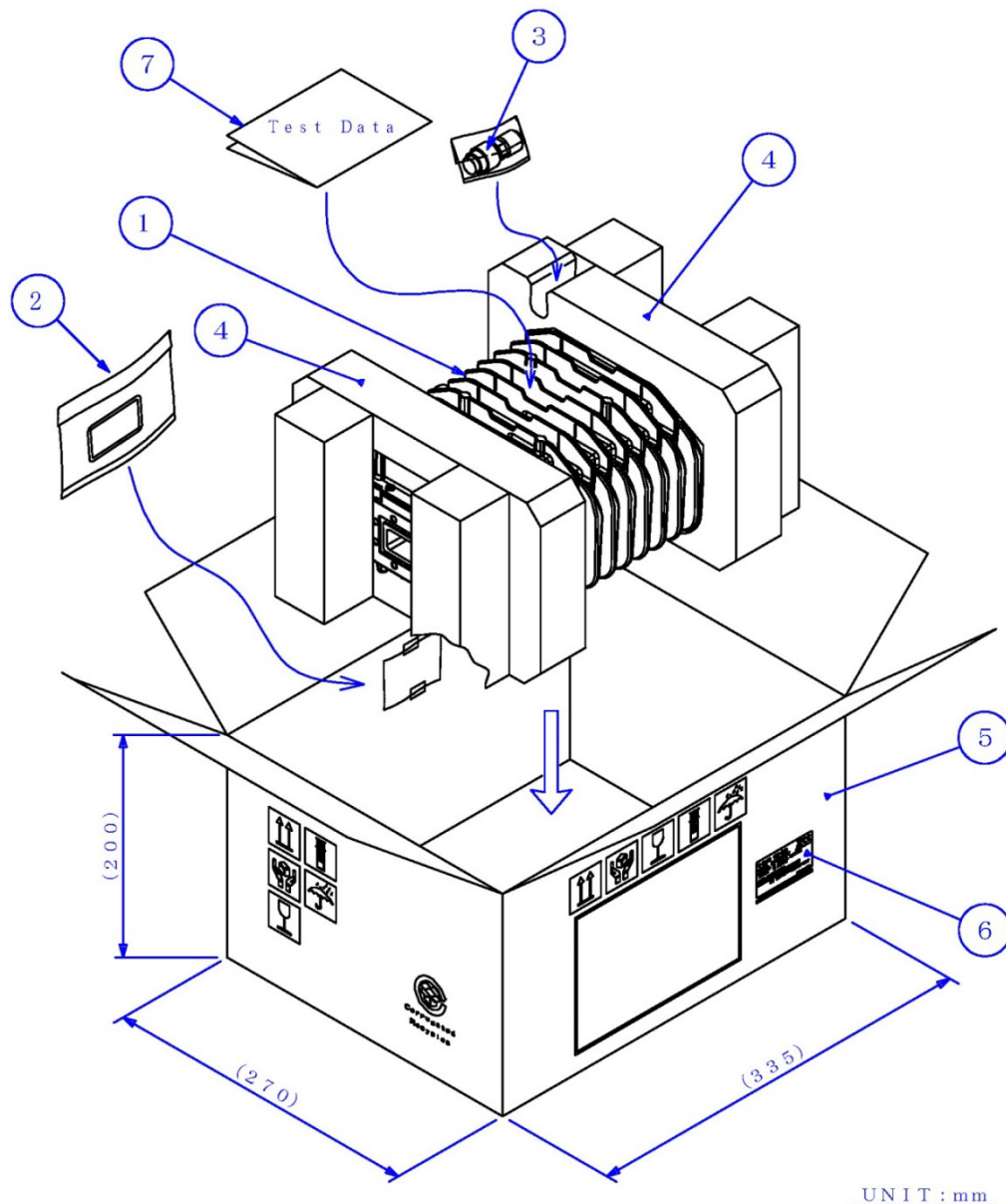


UNIT : mm

- ① : BUC
- ② : Accessories
 • O-RING
- ③ : Polyethylene Foam For Package Cushioning
- ④ : Corrugated Fibreboard (Double Wall)
- ⑤ : Label
- ⑥ : Test Data

* Above Specifications are subject to change without notice.

● Models of MS connector for DC Input



- ① : BUC
- ② : Accessories
 - O-RING
- ③ : Accessory
 - MS mating connector
- ④ : Polyethylene Foam For Package Cushioning
- ⑤ : Corrugated Fibreboard (Double Wall)
- ⑥ : Label
- ⑦ : Test Data

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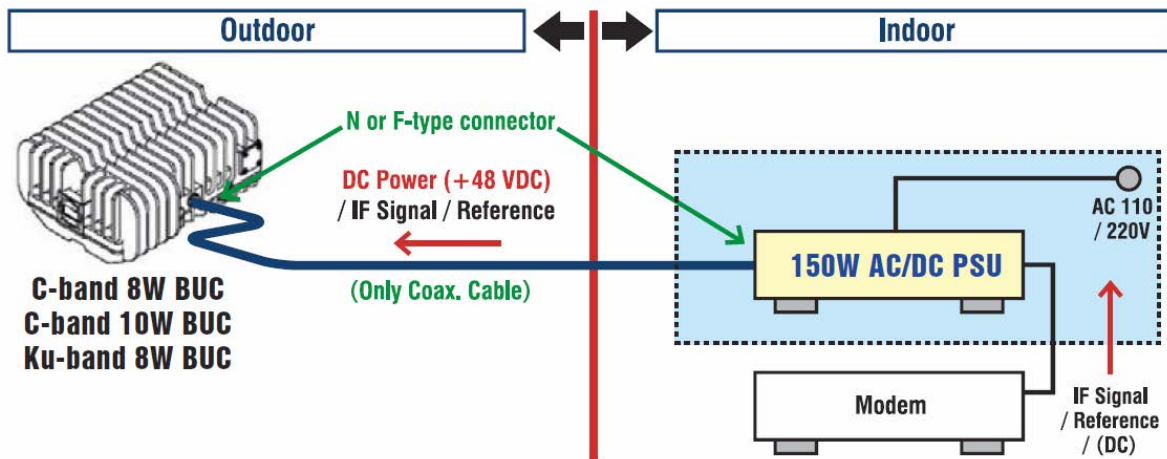
AC Power Operating Option

1. Overview

The power supply unit (PSU) provides a DC power to operate NJRC's Ku-band 8W BUCs (NJT5118, NJT5218 and NJT8318 series) and C-band 10W BUCs (NJT5672, NJT5763 and NJT5764 series) via a coaxial cable.

The features are

- Indoor power supply unit with up to 150 W and +48 V DC power output.
- Regardless of Any Types of Modem.
- DC power output can be turned on/off by mechanical switch on the front panel.
- The mode of DC power output can be selected out of in the following mode options by DIP switch on the front panel.
 - Option 1: To keep supplying DC power regardless of modem output status
 - Option 2: To control power DC output on/off by synchronization of input DC voltage on/off from modem
- Directly connect the coaxial cable for IF signal, 10 MHz reference and DC power from modem.
- One Coaxial Cable Solution.
- Compatible with 1U rack-mount.



* Above Specifications are subject to change without notice.



AC Power Operating Option

2. Electrical Specifications

#	Items	Specifications
2-1.	Input AC Voltage Range [Rated Range] [Absolute Maximum Rating]	100 to 240 VAC 90 to 264 VAC
2-2.	Input AC Frequency Range	50/60 Hz
2-3.	Maximum Input AC Apparent Power	200 VA
2-4.	Output Voltage	+48 VDC
2-5.	Output Voltage Accuracy	+/- 10 %
2-6.	Output Current Range	0 to 3.2 A
2-7.	Maximum Output Power	150 W
2-8.	Standby Mode Power • No Connect BUC • Non DC Power Output	10 W max.
2-9.	Efficiency	80 % typ. at 120 VAC, full load
2-10.	Power Factor	0.98 typ. at 120 VAC, full load
2-11.	Output ON/OFF Control	• Rocker Switch on the Front Panel • Mode of DC Power Output Option 1: To keep supplying Option 2: Synchronization with input DC voltage on/off
2-12.	IF Frequency Range	950 to 1,700 MHz
2-13.	IF Input/ Output Impedance < N-type Model >	50 ohms nom.
	< F-type Model >	75 ohms nom.
2-14.	IF Input/ Output VSWR	2 : 1 max.
2-15.	IF Insertion Loss	1.5 dB max.
2-16.	Input DC Voltage Range at IF Input Interface	+24 / +48 VDC In case of option 2 in mode of DC power output, 50mA min. is needed from modem.
2-17.	Protection	• Internal Primary Current Fuse • Short Protection
2-18.	LED Indicator [DC Output (Power)] [Fan Alarm]	GREEN: Supply a DC Power to BUC GREEN: Normal Condition RED: Abnormal Condition and must be Replacement

* Above Specifications are subject to change without notice.



AC Power Operating Option

3. Mechanical Specifications

#	Items	Specifications
3-1.	AC Input Interface	IEC320-C14 inlet
3-2.	IF Input Interface	
	< N-type Model > < F-type Model >	N-type, female (50 ohms) F-type, female (75 ohms)
3-3.	IF Output Interface	
	< N-type Model > < F-type Model >	N-type, female (50 ohms) F-type, female (75 ohms)
3-4.	Cooling	Forced Air by Fan
3-5.	Dimension & Housing without Interface and Switch	(W) 290 x (D) 200 x (H) 44 mm [(W) 11.42" x (D) 7.87" x (H) 1.73"]
3-6.	Weight	1.6 kg [3.5 lbs]

4. Environmental Specifications

#	Items	Specifications
4-1.	Temperature Range (ambient)	
	[Operating] [Storage]	0 to +50 °C -30 to +85 °C
4-2.	Humidity	
	[Operating] [Storage]	30 to 90 %Rh non-condensing 10 to 95 %Rh
4-3.	Vibration	Non Operation 19.6 m/s ² Constant (10 to 55 Hz, Sweep time: 1min., 3 axis, 1hr)
4-4.	Shock	20 G [196.1 m/s ²] (3 axis)
4-5.	Compliance Standard	EN55022 EN55024 EN61000-3-2/3 EN60950-1 / UL60950-1 EN62311
4-6.	Regulations	EU Directive (CE Marking) EMC (2004/108/EC) Low Voltage (2006/95/EC) UL Citification
4-7.	Comply with RoHS (Restricting the use of Hazardous Substances) directives	

5. Accessories

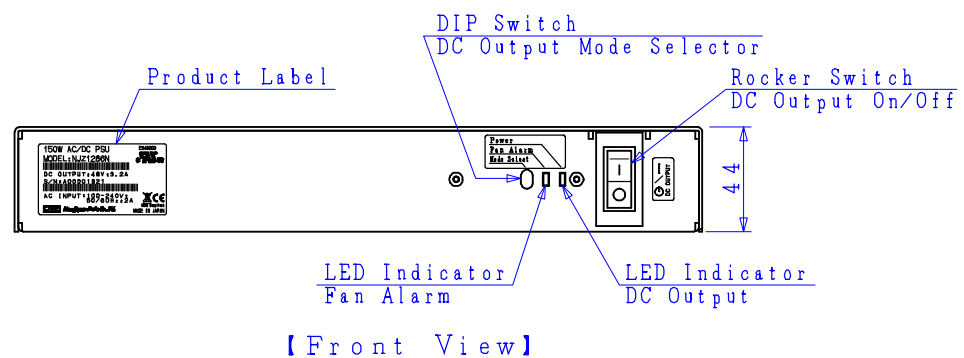
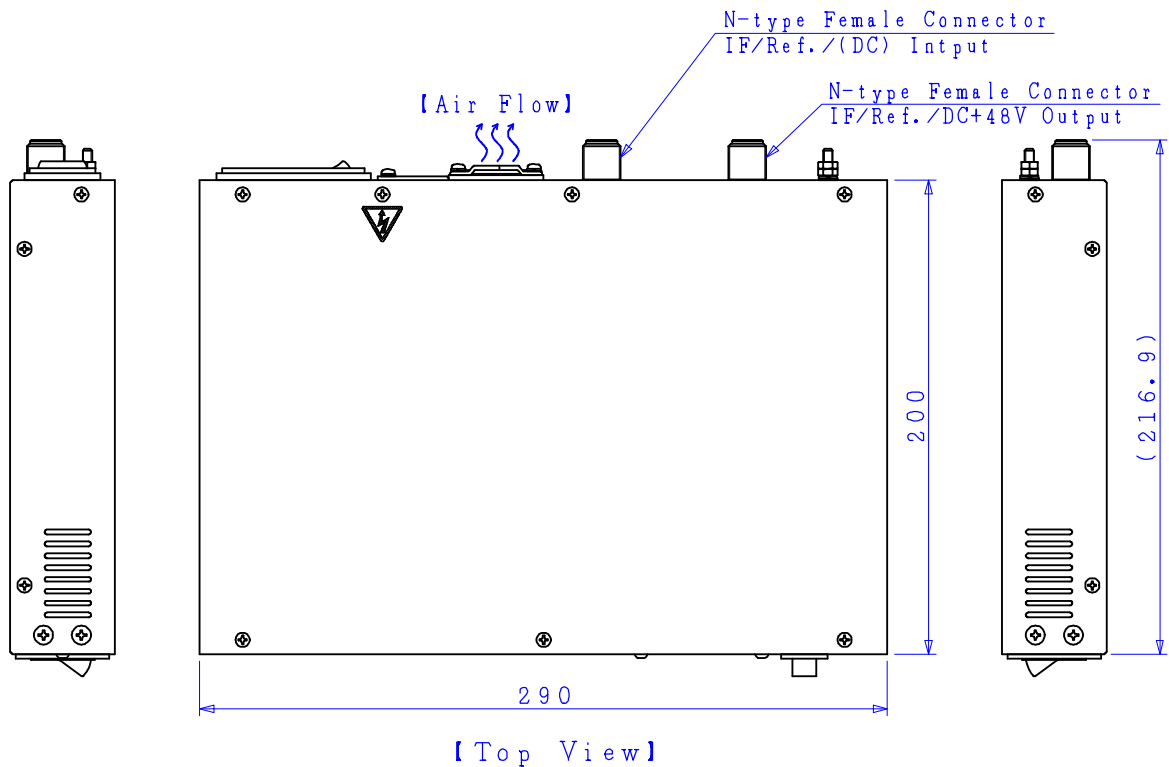
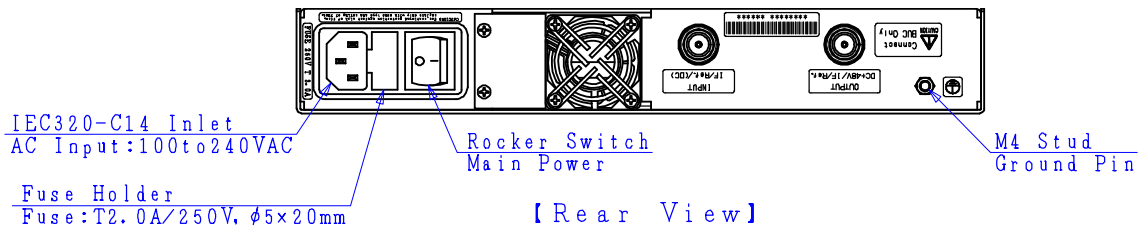
- AC power cable of 2 m (with 3 pins American plug) , Qty (1)
- Coaxial cable of 1 m (Option)
- 1U rack-mount kit (Option)

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AC Power Operating Option

6. Outline Drawing

- IF Interface : N-type Female Connector

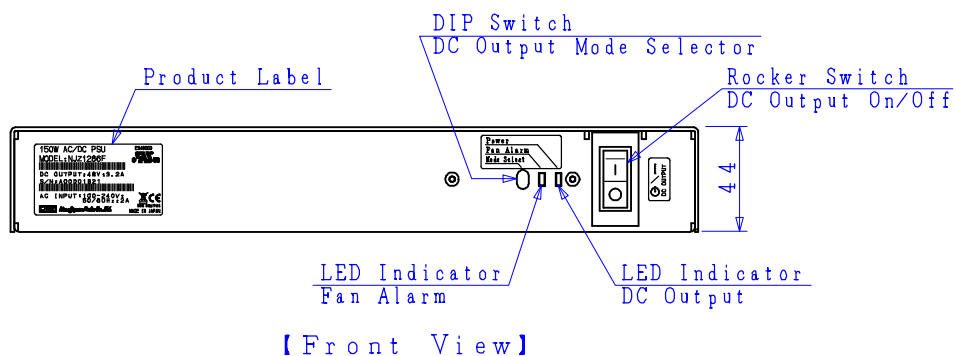
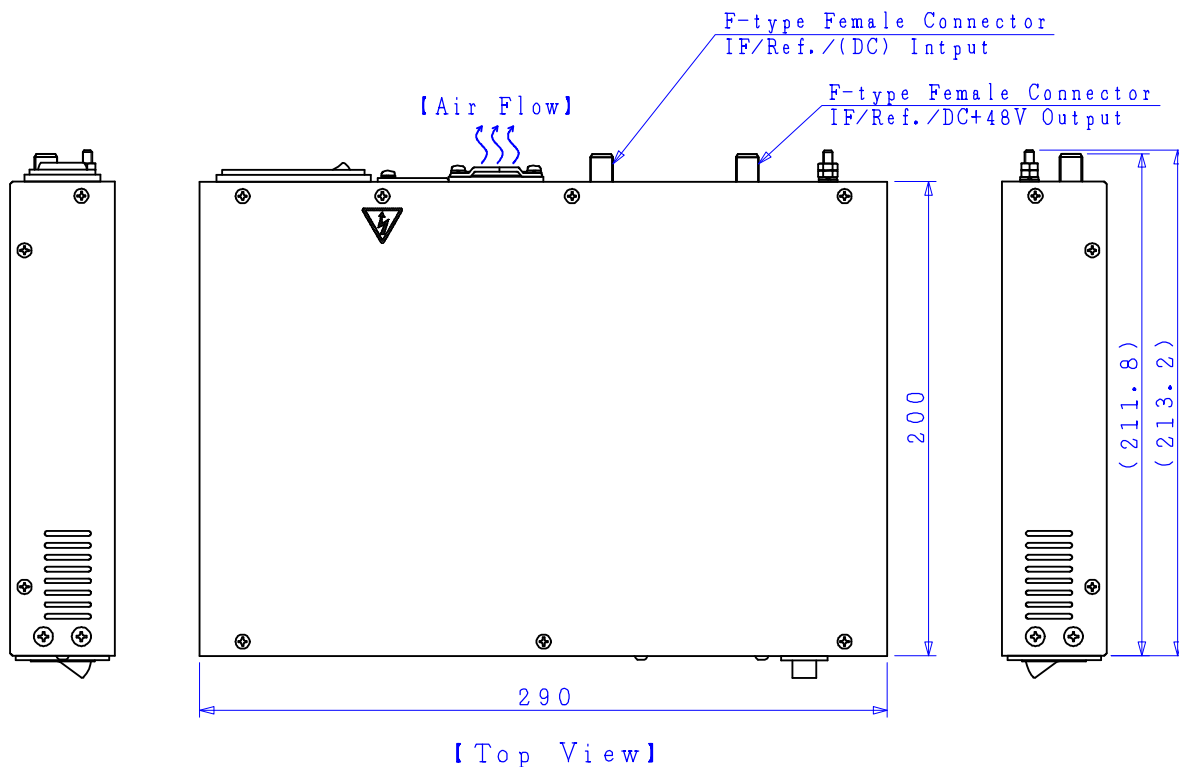
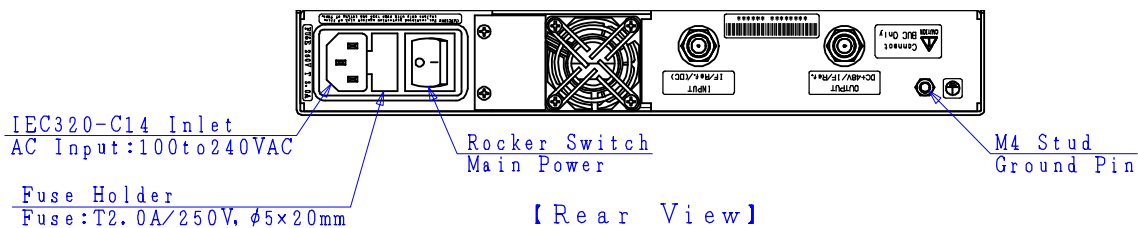


UNIT : mm

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AC Power Operating Option

- IF Interface : F-type Female Connector

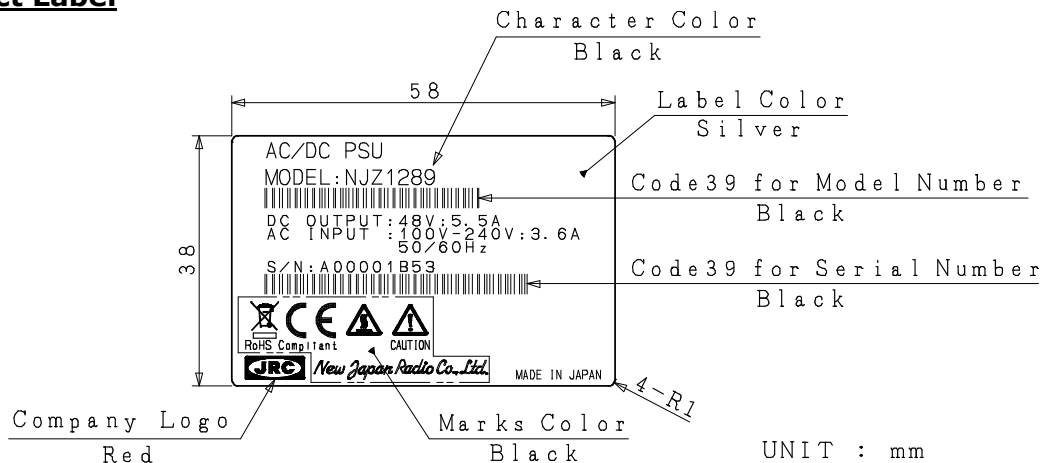


UNIT : mm

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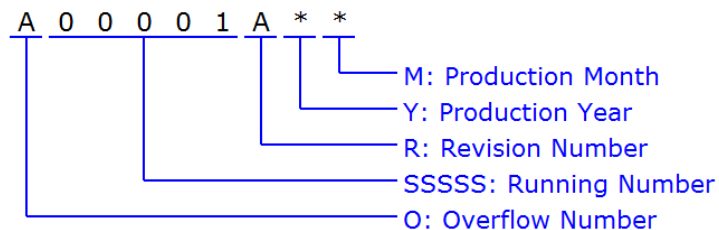
AC Power Operating Option

7. Label Product Label



Definition of Serial Number

Serial Number (OSSSSRYM) - ALPHANUMERIC (9 characters)



O: Overflow Number - ALPHABET (1 character)

"A" to "Z", e.g.: A99999 ⇒ B00001

SSSS: Running Number - NUMBER (5 digits)

"00001" to "99999"

R: Revision Number - ALPHABET (1 character)

"A" to "Z"

Y: Production Year - NUMBER (1 digit)

Calendar Number, e.g.: 2009:9, 2010:0, 2011:1, 2012:2 ····

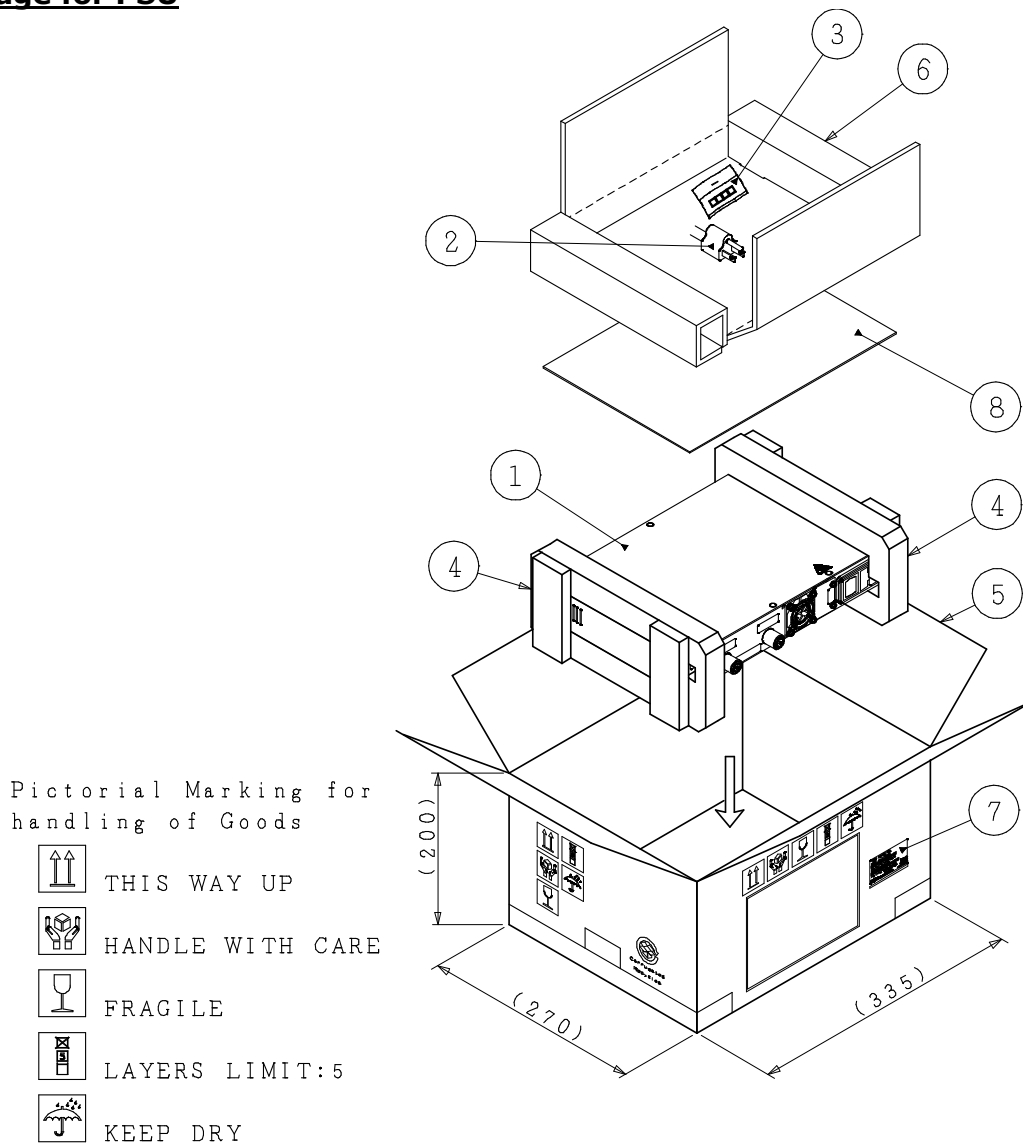
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"1" to "9", "X" as October, "Y" as November, "Z" as December

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AC Power Operating Option

8. Package Package for PSU



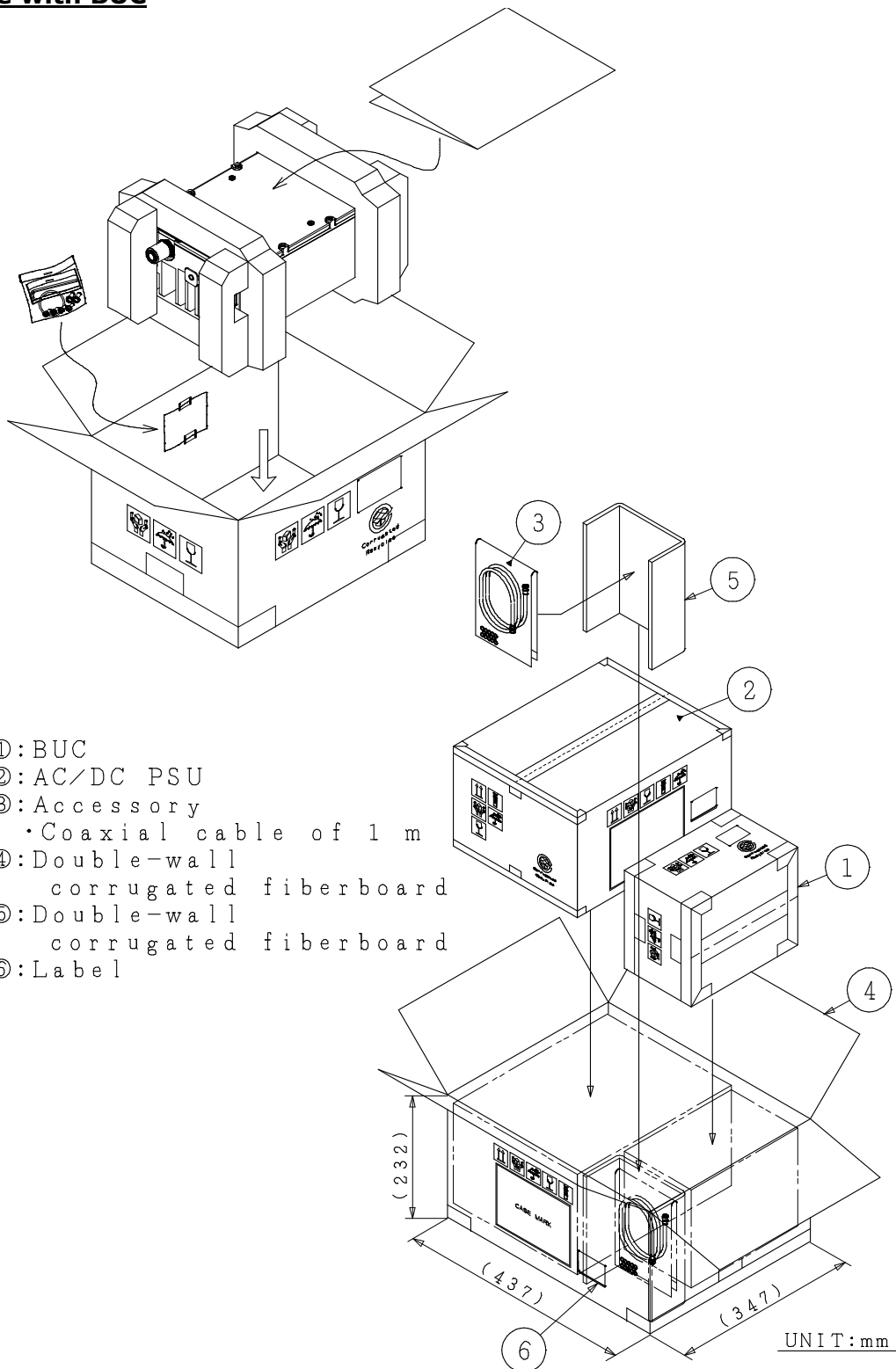
- ①:150W AC/DC PSU
- ②:Accessory
 - AC power cable of 2m
- ③:Accessory
 - Cushioning pad(4 pieces)
- ④:Polyethylene Foam For Package Cushioning
- ⑤:Corrugated Fiberboard(Double Wall)
- ⑥:Corrugated Fiberboard(Single Wall)
- ⑦:Label
- ⑧:User's Manual

UNIT:mm

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AC Power Operating Option

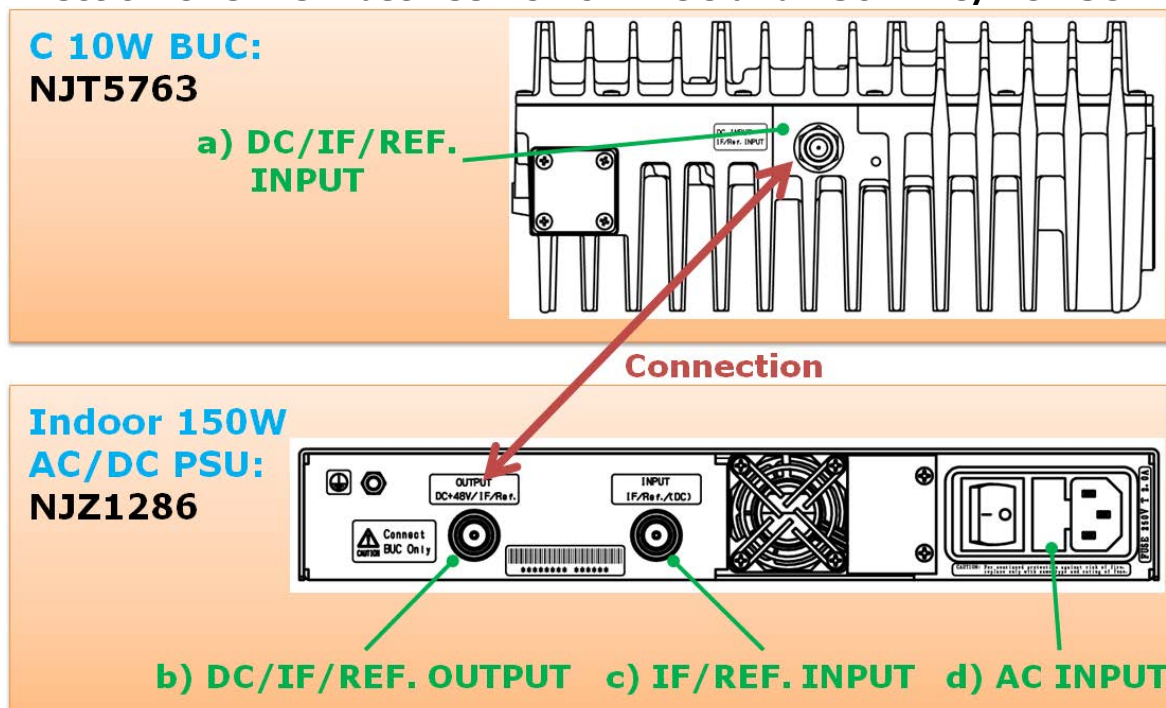
Package with BUC



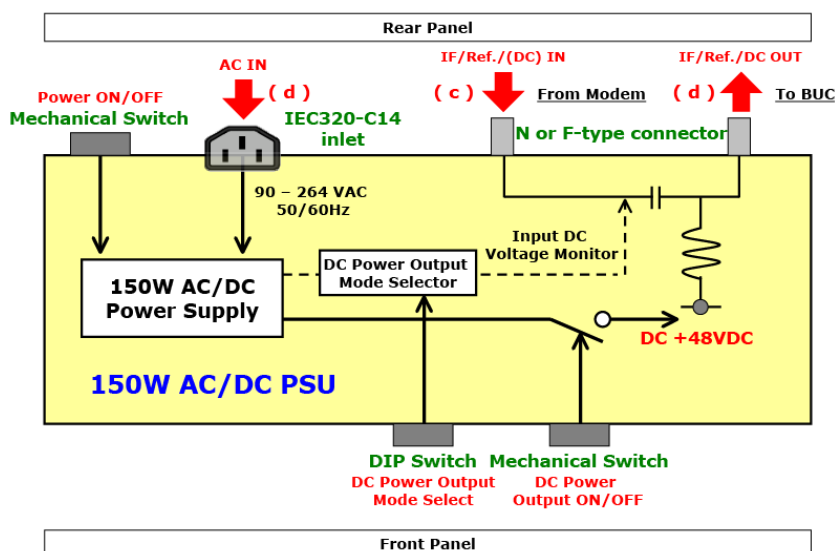
* Above Specifications are subject to change without notice.

AC Power Operating Option

9. Connection Overview between C 10W BUC and 150W AC/DC PSU



10. Basic Operation Diagram



- 1) Main power can be turned on/off by mechanical switch on the rear panel.
- 2) DC power output can be turned on/off by mechanical switch on the front panel.
- 3) DC power output mode can be selected by customer in following two mode options by DIP switch on the front panel.
 - Option 1: Possible always to supply DC power regardless of Modem output status.
 - Option 2: Possible to control power DC output on/off by synchronization of input DC voltage on/off from modem.

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