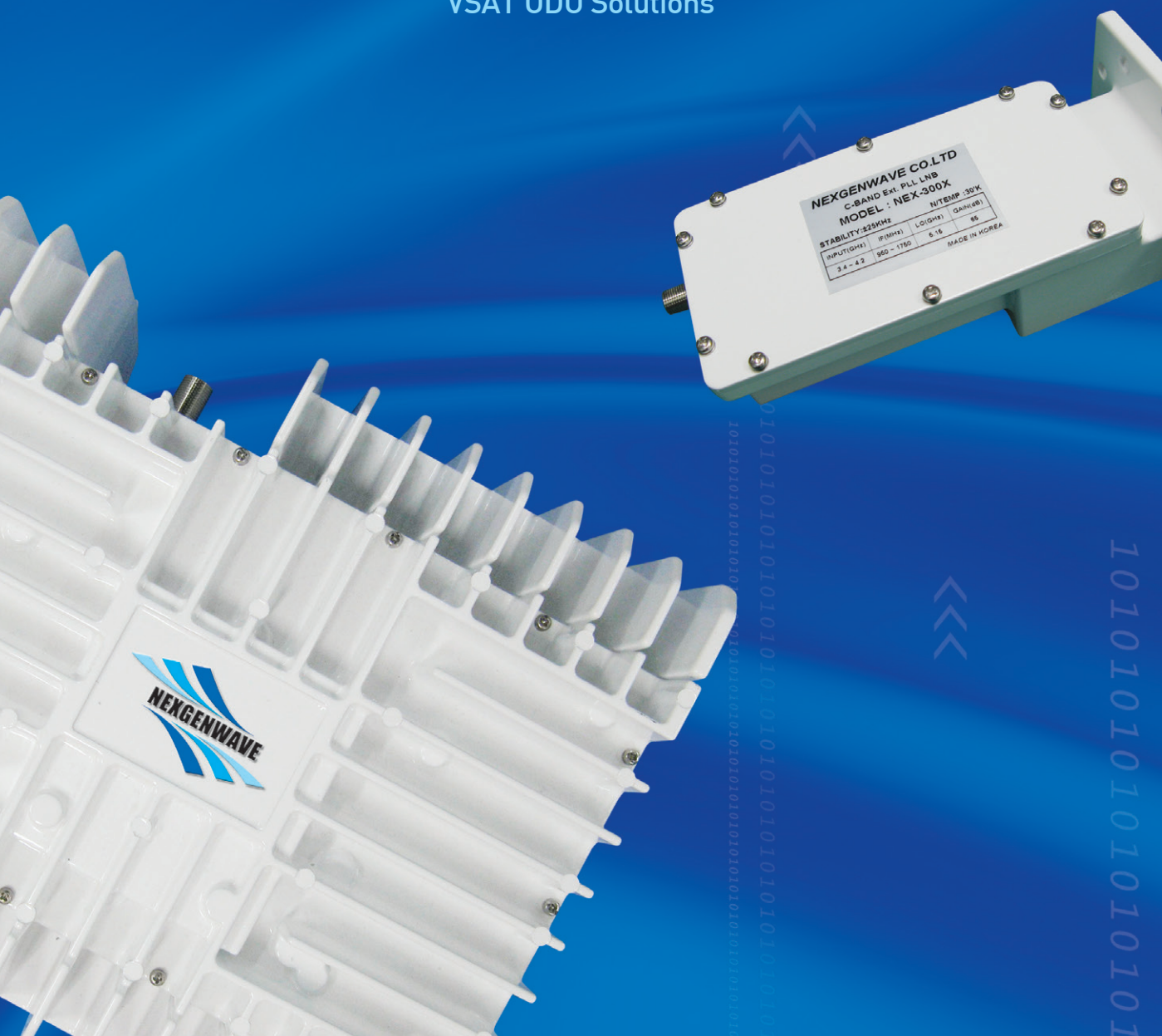
NEXGENWAVE

Technology for Next Generation

VSAT ODU Solutions



Ku-band Specifications

	Parameter		Unit	Mini 2/3W	Mini 4W	4W	Mini 6W	Mini 8W
Input Characteristics	Frequency Range		MHz					
	Impedance		Ohms					
	Return Loss							
	Interface							
Output Characteristics	Frequency Range		GHz					
	1dB Compression Point		dBm	33@2W / 34@3W	36		37.8	39
	Return Loss							
	Interface							
Transfer Characteristics	Frequency Sense							
	Linear Gain	Typical	dB	55	58		60	65
	Gain Variation	Over 54 MHz	dB					
		Over the whole bandwidth						
		Over Operating Temperature						
	Spurious	In Band	dBc					
		Out of Band						
	Phase Noise (Typical)	100Hz	dBc/Hz					
		1KHz						
		10KHz						
		100KHz						
Miscellaneous	Operating Voltage		VDC	15 ~ 24			15 ~ 13	18 ~ 60 (Opt. MS Con.)
	Power Consumption	Max.	W	2W: 18 3W: 20	35		48	75
	External 10MHz Reference Power Level		dBm					
	Operating Temperature		℃					
	Humidity							
	Internal Function							
	Dimensions		mm	128.4 X 95.1 X 58.3	128.4 X 95.1 X 58.3	176.1 X 161.5 X 65	158.8 X 97.4 X 55	175.9 X 169 X 101
	Weight		Kg	0.7	0.7	1.8	0.9	2.7

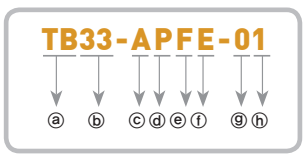
Part number configuration

ⓐ Product ID
- TB : Ku-band BUC
- TBR : Ku-band Rear Connector BUC
- TBA : Ku-band Mini BUC
- GBA : GaN Ku-band BUC
- RBA : Inverted Ku-band Mini BUC

ⓑ Output Power
- 33 : 2W
- 34 : 3W
- 36 : 4W
- 38 : 6W
- 39 : 8W
- 40 : 10W
- 42 : 16W
- 43 : 20W
- 44 : 25W
- 46 : 40W

ⓒ Ku-band BUC Operating Frequency for Product ID, "TB"
- A : 14.0 ~14.5GHz
- B : 13.75 ~ 14.25GHz
- C : 13.75 ~14.5GHz

Special Frequency
- D : 12.25 ~ 12.75
- E : 11.7 ~ 12.5
- F : 13.0 ~ 13.25
- G : 12.75 ~ 13.25
- H : 10.38 ~ 10.55
- I : 12.25 ~ 13.0
- J : 14.6 ~ 15.4
- K : 11.75 ~ 12.5
- L : 10.7 ~ 11.5
- M : 11.835 ~ 12.180
- N : 13.25 ~ 13.75
- O : 17.3 ~ 17.7
- P : 17.7 ~ 18.1
- Q : 17.3 ~ 18.1
- R : 14.5 ~ 14.8
- S : 18.1 ~ 18.4



Ku – band							
8W	10W	16W	Mini 20W	20W	25W	40W	GaN 40W
A : 950 ~ 1450 B : 950 ~ 1450 C : 950 ~ 1700							
F–Connector : 75 or N–Connector : 50							
2 : 1							
F–Connector or N–Connector							
A : 14.0 ~ 14.5 (Std.) B : 13.75 ~ 14.25 (Low) C : 13.75 ~ 14.5 (Ext.)							
39	40 (Min. 39.5 Over temp.)	42	43		44	46	46 @Psat
2 : 1							
WR75G / WR62G							
Non–inverted							
65	67	68	69		70	72	72
1.5							
4							
4							
–60							
–50							
–65							
–75							
–85							
–95							
18 ~ 24 36 ~ 60 (Opt. MS Con.)		20 ~ 36 / 36~60 VDC 85~265 VAC (M&C Optional)	36 ~ 60 VDC (M&C Optional)	20 ~ 36 / 36~60 VDC 85~265 VAC (M&C Optional)		36~60 VDC 85~265 VAC (M&C Optional)	36~60 VDC 85~265 VAC (M&C Optional)
75	DC: 100 AC: 130	DC: 200 AC: 220	160	DC: 220 AC: 240	DC: 240 AC: 260	DC: 370 AC: 390	330W 350W@Psat
–5 to +5							
–40 ~ +55							
100% Condensing							
Lock Detector shuts off Tx in case of LO unlocked							
220 X 194.2 X 103.5		220 X 195 X 136 (DC) 220 X 195 X 182 (AC)	170 X 120 X 110	220 X 195 X 136 (DC) 220 X 195 X 182 (AC)		220X195X142(DC) 220X195X188(AC)	220X133X115(DC) 220X133X161.3(AC)
4.5		5–DC/DC 6–AC/DC Mounting Jig– Add up 1Kg	2.3	5–DC/DC 6–AC/DC Mounting Jig– Add up 1Kg			3.5(DC) 4(AC) M/J–Add up 1Kg

ⓓ Operating Temperature
- O : -40 ~ +50 °C
- P : -40 ~ +55 °C
- Q : -40 ~ +60 °C
- R : -15 ~ +55 °C

ⓔ Connector Type
- F : F-type Connector
- N : N-type Connector
- S : SMA-type Connector

ⓕ Reference Source
- E : External
- I : Internal

ⓖ Function
- 0 : Normal
- M : M&C Function

ⓗ DC Option
- 1 : 15~24VDC
- 2 : 18 ~ 24VDC
- 3 : 36~60VDC
- 4 : 18 ~ 60VDC
- 5 : MS Con. 18 ~ 60VDC
- 6 : MS Con. 15 ~ 24VDC
- 7 : MS Con. 18 ~ 24VDC
- 8 : MS Con. 36 ~ 60VDC
- 9 : MS Con. 85 ~ 265VAC
- B: 15 ~ 30VDC

2 / 3W Ku-band Mini BUC

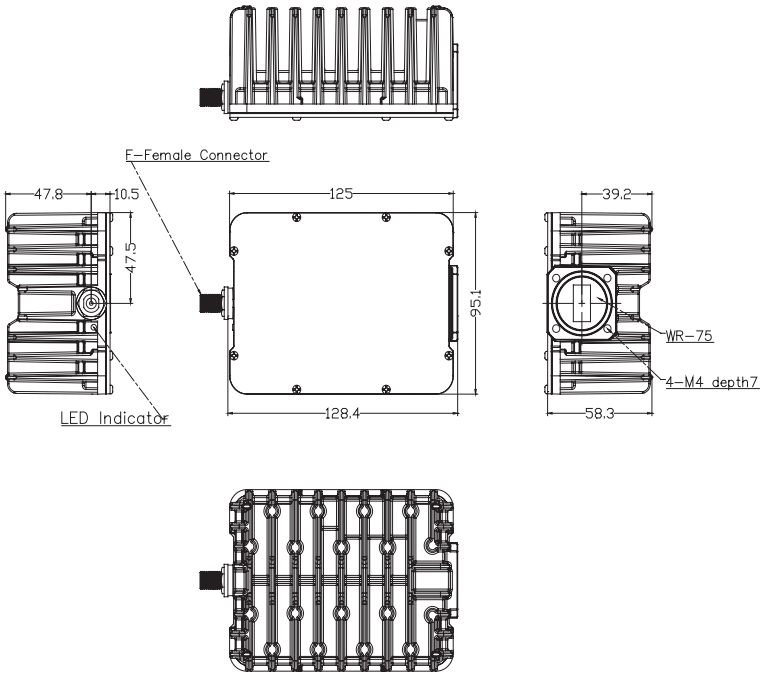
VSAT™ Series are ideal for Broadband VSAT RF terminal.

- 2W: 33, 3W: 34dBm output power
- Small Size & Mass(0.7kg)
- Optional Internal Reference
- RoHS Compliant
- Power Consumption (Max.): 2W: 18W, 3W: 20W
- Two-year Warranty

2 / 3W Ku-band Mini BUC Model

Model Number	Description	RF Band (GHz)	IF Band (MHz)	Output Power
TBA33APF(N)E-01	Mini 2W Std. Ku BUC	14.00-14.50	950-1450	+33dBm
TBA34APF(N)E-01	Mini 3W Std. Ku BUC			+34dBm
TBA33BPF(N)E-01	Mini 2W Low Ku BUC	13.75-14.25	950-1450	+33dBm
TBA34BPF(N)E-01	Mini 3W Low Ku BUC			+34dBm
TBA33CPF(N)E-01	Mini 2W Ext. Ku BUC	13.75-14.50	950-1700	+33dBm
TBA34CPF(N)E-01	Mini 3W Ext. Ku BUC			+34dBm

Mechanical Drawing



4W Ku-band Mini BUC

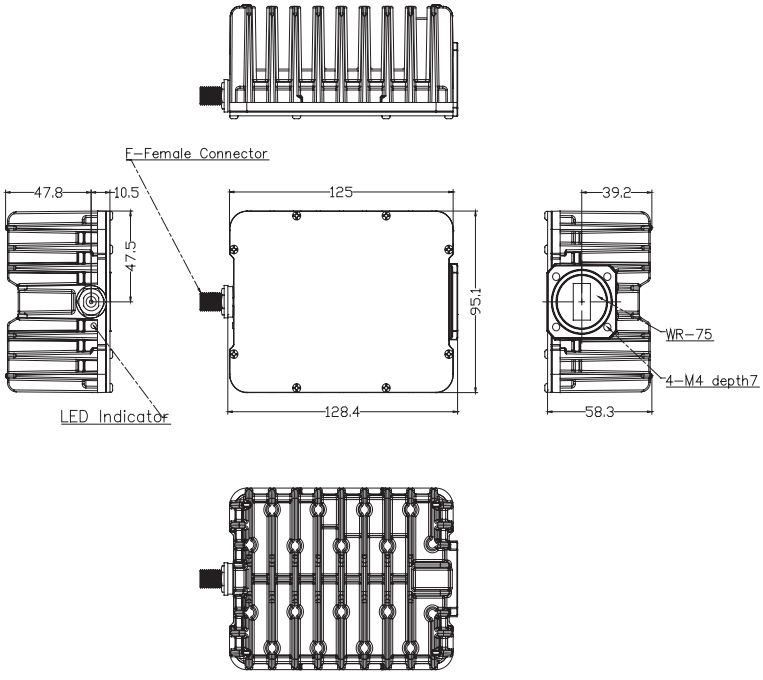
VSAT™ Series are ideal for Broadband VSAT RF terminal.

- 36dBm output power
- Very Small Size & Mass(0.75kg)
- Optional Internal Reference source
- RoHS Compliant
- Low DC Power Consumption (Max.): 35W
- LED Indicator
- Two-year Warranty

4W Ku-band Mini BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TBA36APFE-01	4W Ku-band BUC Std. F/N Type	14.00-14.50	950-1450	+36dBm
TBA36APNE-01				
TBA36BPFE-01	4W Ku-band BUC Low F/N Type	13.75-14.25	950-1450	+36dBm
TBA36BPNE-01				
TBA36CPFE-01	4W Ku-band BUC Ext. F/N Type	13.75-14.50	950-1700	+36dBm
TBA36CPNE-01				

Mechanical Drawing



6W Ku-band Mini BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

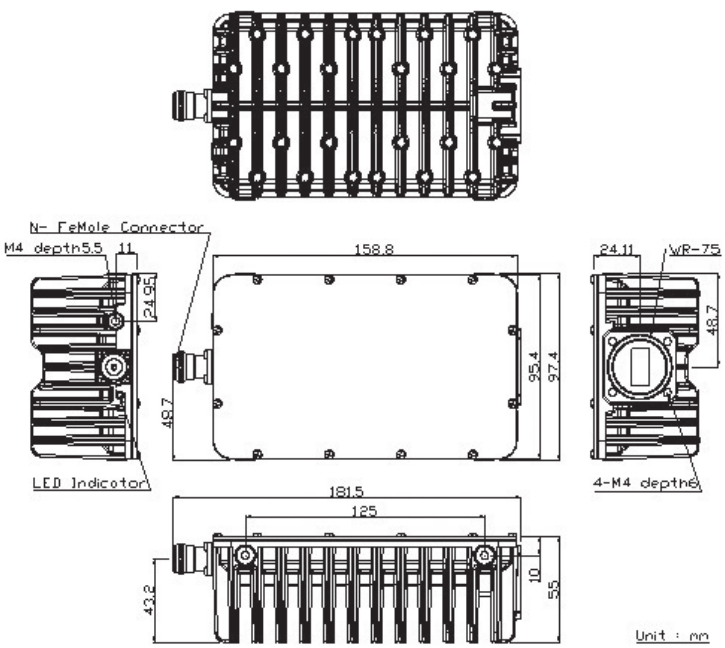
- 37.8dBm output power
- Small Size & Mass(0.9kg)
- Optional Internal Reference
- RoHS Compliant
- Power Consumption (Max.): 48W
- LED Indicator
- Two-year Warranty

6W Ku-band Mini BUC Model

Model Number	Description	RF Band (GHz)	IF Band (GHz)	Output Power
TBA38APFE-0B	6W Ku-band BUC Std, F/N Type	14.00-14.50	950-1450	+37.8dBm
TBA38APNE-0B				
TBA38BPFE-0B	6W Ku-band BUC Low F/N Type	13.75-14.25	950-1450	+37.8dBm
TBA38BPNE-0B				
TBA38CPFE-0B	6W Ku-band BUC Ext, F/N Type	13.75-14.50	950-1700	+37.8dBm
TBA38CPNE-0B				

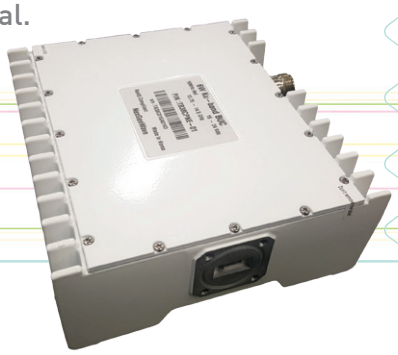
0B: 15 ~ 30VDC

Mechanical Drawing



6W Ku-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

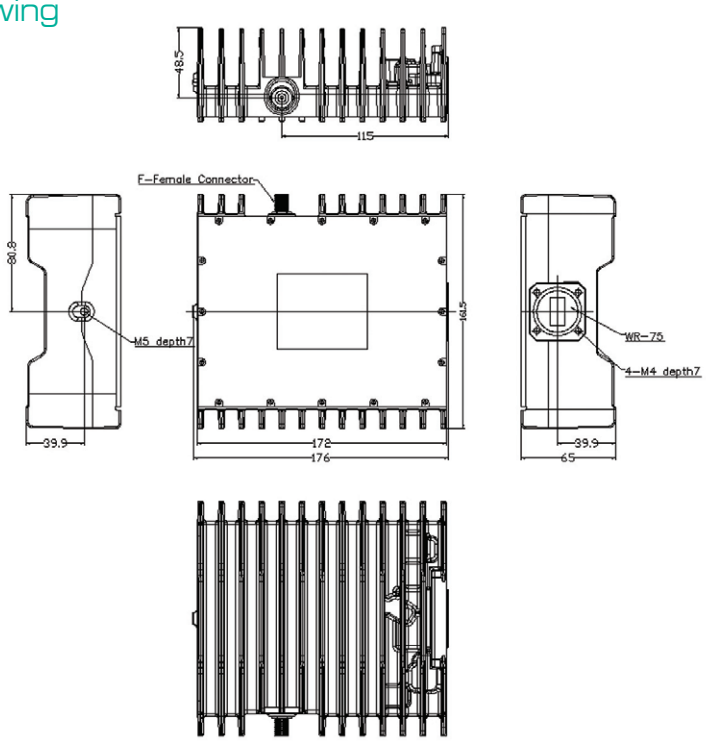


- 37.8dBm output power
- Optional Internal Reference
- RoHS Compliant
- Small Size & Mass
- Power Consumption (Max.): 48W
- Two-year Warranty

6W Ku-band BUC Model

Model Number	Description	RF Band (GHz)	IF Band (GHz)	Output Power
TB38APF(N)E-01	6W Std. Ku BUC	14.00-14.50	950-1450	+37.8dBm
TB38BPF(N)E-01	6W Low Ku BUC	13.75-14.25	950-1450	
TB38CPF(N)E-01	6W Ext. Ku BUC	13.75-14.50	950-1700	

Mechanical Drawing



8W Ku-band Mini BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

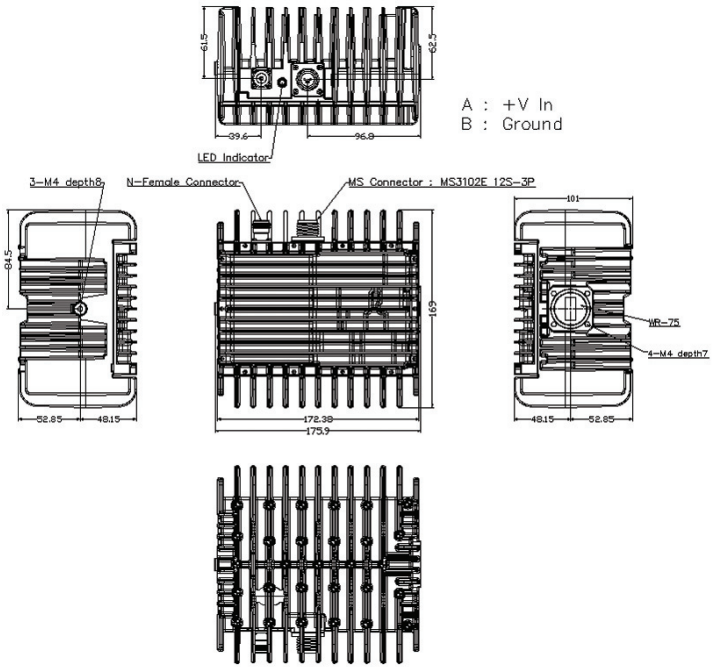
- 39dBm output power
- Optional Internal Reference source
- RoHS Compliant
- 18 ~ 60VDC (Opt. MS Connector)
- Low DC Power Consumption (Max.): 75W
- LED Indicator
- Two-year Warranty

8W Ku-band Mini BUC Model

Model Number	Description	RF Band (GHz)	IF Band (GHz)	Output Power
TBA39APF(N)E-04 TBA39APF(N)E-05	8W, Std, F/N Type (Opt. MS Connector)	14.00-14.50	950-1450	+37.8dBm
TBA39BPF(N)E-04 TBA39BPF(N)E-05	8W, Low F/N Type (Opt. MS Connector)	13.75-14.25	950-1450	+37.8dBm
TBA39CPF(N)E-04 TBA39CPF(N)E-05	8W, Ext, F/N Type (Opt. MS Connector)	13.75-14.50	950-1700	+37.8dBm

04: 18 ~ 60VDC, 05: MS Con. 18 ~ 60VDC

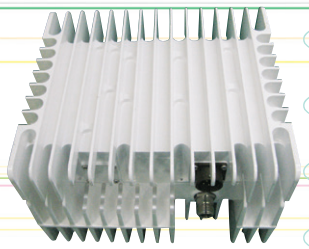
Mechanical Drawing



10W Ku-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

- 10W: 40dBm output power
- Optional Internal Reference source, VAC and MS Connector
- RoHS Compliant
- 18~24VDC, 36~60VDC, 85~265VAC
- Power Consumption (Max.): DC 100W, AC 130W
- Two-year Warranty



AC Version

DC Version

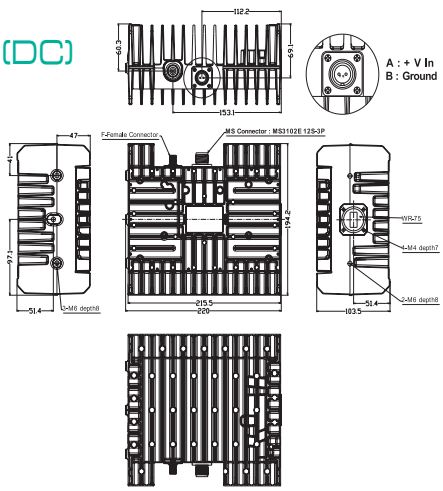
10W Ku-band BUC Model

Model Number	Description	Output Power	RF Band(GHz)	IF Band(MHz)
TB40APF(N)E-02	10W Std. BUC 24V	+40dBm	14.00-14.50	950-1450
TB40APF(N)E-03	10W Std. BUC 48V	+40dBm		
TB40BPF(N)E-02	10W Low BUC 24V	+40dBm	13.75-14.25	950-1450
TB40BPF(N)E-03	10W Low BUC 48V	+40dBm		
TB40CPF(N)E-02	10W Ext. BUC 24V	+40dBm	13.75-14.50	950-1700
TB40CPF(N)E-03	10W Ext. BUC 48V	+40dBm		

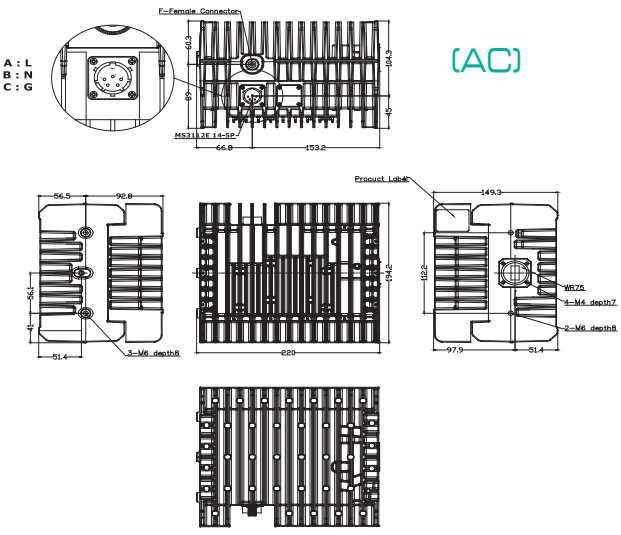
02: 18 ~ 24VDC, 03: 36 ~ 60VDC, 07: MS Con. 18 ~ 24VDC, 08: MS Con. 36 ~ 60VDC, 09: MS Con. 85 ~ 265VAC

Mechanical Drawing

(DC)



(AC)



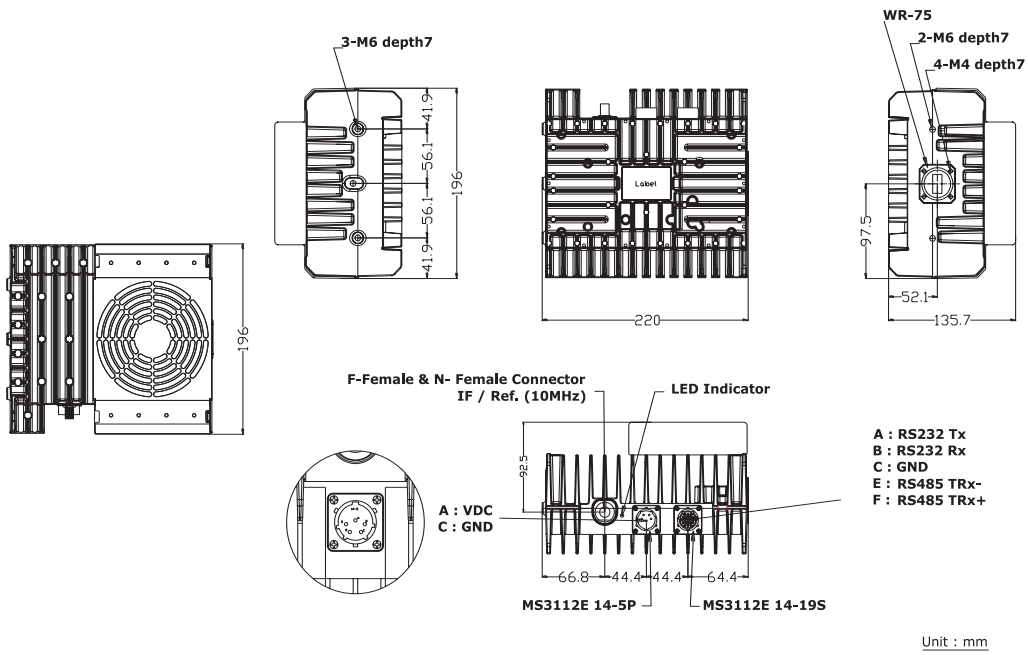
16 / 20 / 25W Ku-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

DC Version

AC Version

Mechanical Drawing (DC)



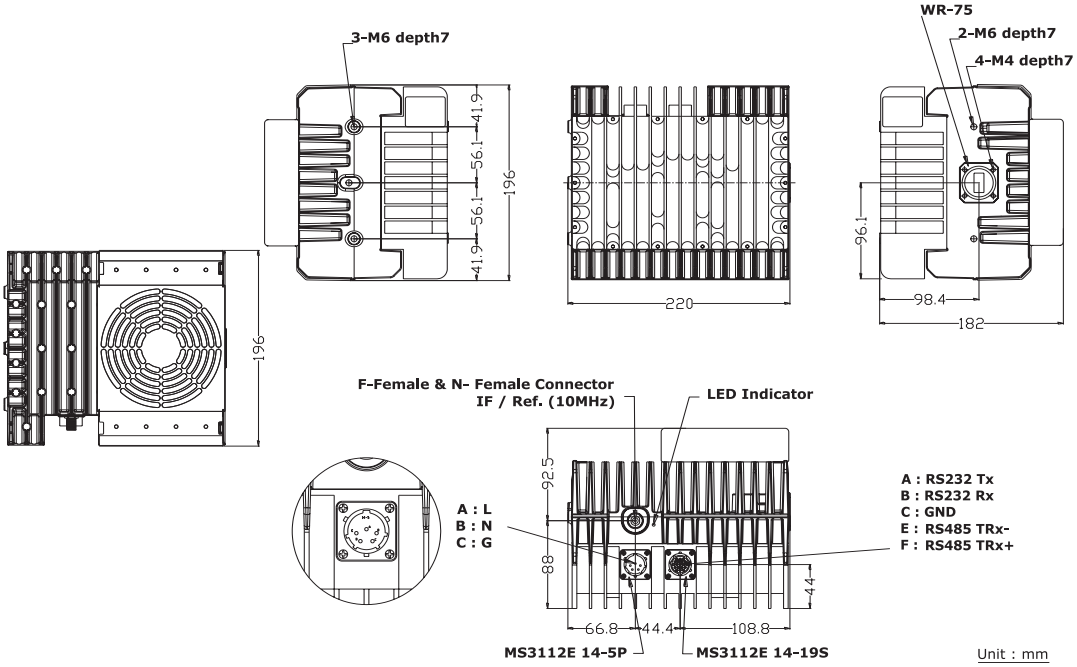
- 16W: 42, 20W: 43, 25W: 44dBm output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- 36~60VDC or 85~265VAC
- Power Consumption (Max.): 16W: DC 200W, AC 220W / 20W: DC 220W, AC 240W
  25W: DC 240W, AC 260W
- LED indicator
- Two-year Warranty

16 / 20 / 25W Ku-band BUC Model

Model Number	Description	Output Power	RF Band(GHz)	IF Band(MHz)
TB42A(C)PF(N)E–08/09	16, 20, 25W Std.(A), Ext.(C), F/N MS Con.	+42dBm	A : 14.00–14.50 C : 13.75–14.50	A : 950–1450 C : 950–1700
TB43A(C)PF(N)E–08/09		+43dBm		
TB44A(C)PF(N)E–08/09		+44dBm		

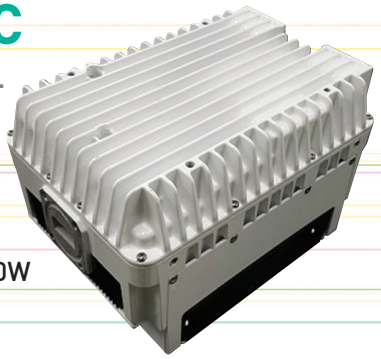
08: MS Con. 36 ~ 60VDC / 09: MS Con. 85 ~ 265VAC
M8: MS Con. 36 ~ 60VDC, M&C / M9: MS Con. 85 ~ 265VAC, M&C

Mechanical Drawing (AC)



16 / 20 / 25W Ku-band Mini BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.



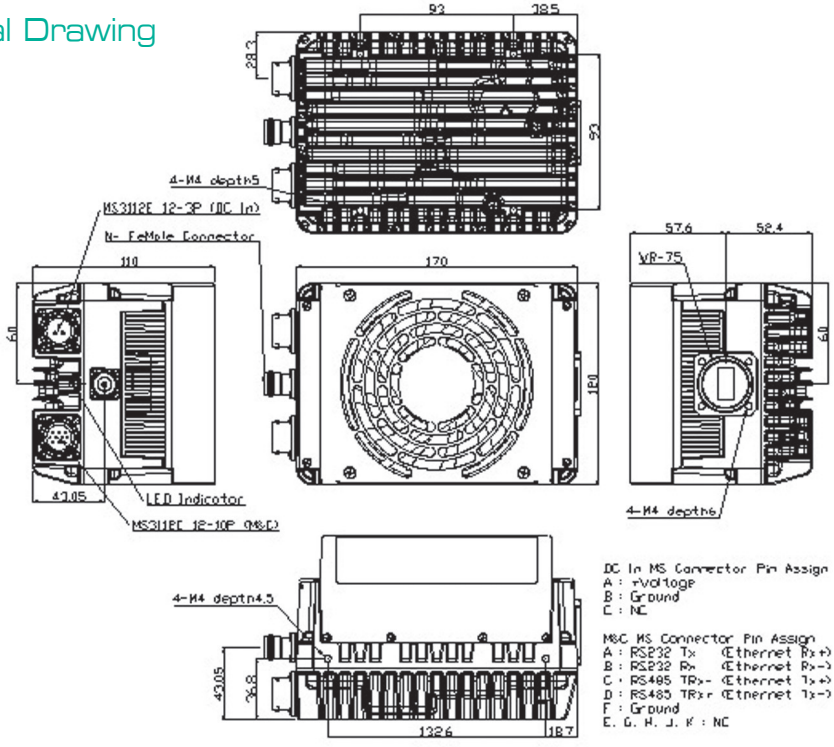
- 16W: 42, 20W: 43, 25W: 44dBm output power
- RoHS Compliant
- 36~60VDC
- Smallest : 160 X 116 X 89.9(mm)
- Power Consumption (Typ.): 16W: 160W, 20W: 180W, 25W: 220W
- LED Indicator
- Two-year Warranty

16 / 20 / 25W Ku-band Mini BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TBC42APF(N)E-08	16W Std, F/N Type	14.00-14.50	950-1450	+42dBm
TBC42CPF(N)E-08	16W Ext, F/N Type	13.75-14.50	950-1700	
TBC43APF(N)E-08	20W Std, F/N Type	14.00-14.50	950-1450	+43dBm
TBC43CPF(N)E-08	20W Ext, F/N Type	13.75-14.50	950-1700	
TBC44APF(N)E-08	25W Std, F/N Type	14.00-14.50	950-1450	+44dBm
TBC44CPF(N)E-08	25W Ext, F/N Type	13.75-14.50	950-1700	

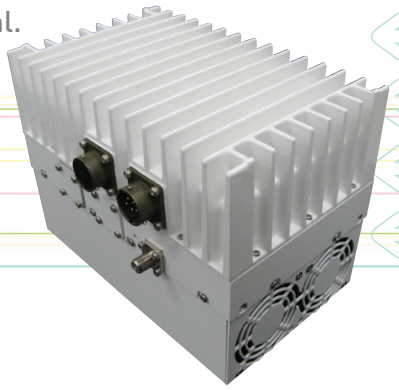
03: 36 ~60VDC, 08: MS Con. 36 ~60VDC, M8: MS Con. 36 ~60VDC, M&C

Mechanical Drawing



GaN 40W Ku-band Mini BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.



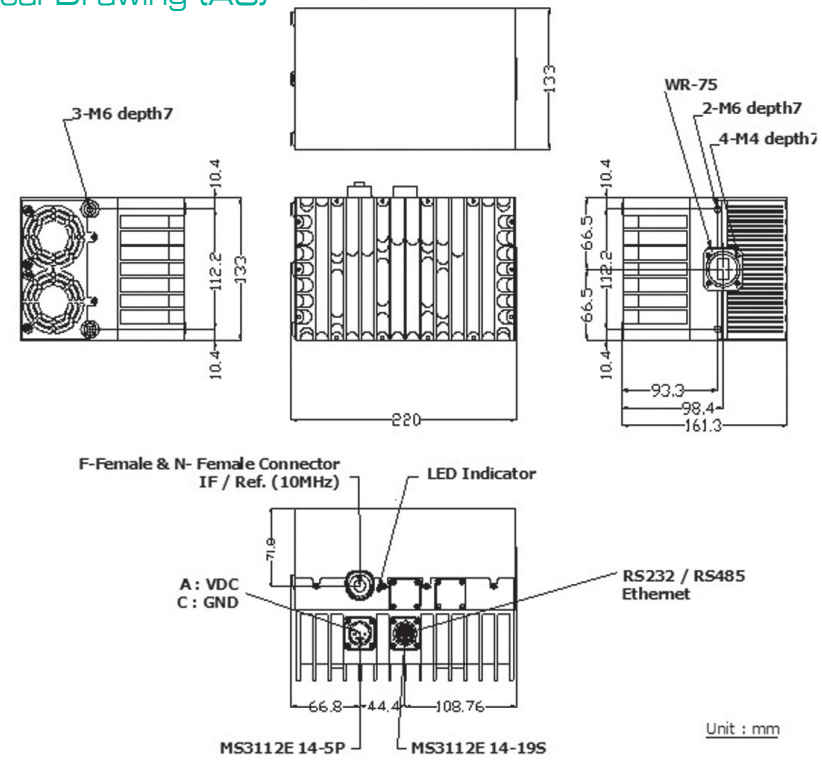
- 46dBm(Psat) output power
- Compact Size
- RoHS Compliant
- Power Consumption (Max.): DC 330W, AC 350W
- Optional Internal Reference
- Optional M&C (RS-485/ RS-232 or Ethernet)
- LED Indicator
- Two-year Warranty

GaN 40W Ku-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
GBA46APF(N)E-09	GaN 40W Ku-band BUC Std, F/N Type	14.00-14.50	950-1450	+46dBm
GBA46BPF(N)E-09	GaN 40W Ku-band BUC Low F/N Type	13.75-14.25	950-1450	+46dBm
GBA46CPF(N)E-09	GaN 40W Ku-band BUC Ext, F/N Type	13.75-14.50	950-1700	+46dBm

08: MS Con. 36 ~60VDC / 09: MS Con. 85 ~265VAC
M8: MS Con. 36 ~60VDC, M&C / M9: MS Con. 85~265VAC, M&C

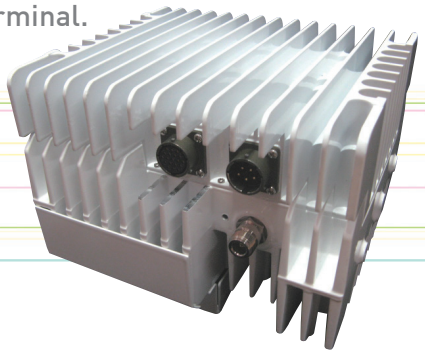
Mechanical Drawing (AC)



40W Ku-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

- 46dBm typical output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- 85~265VAC
- Power Consumption (Max.): 390W
- LED Indicator
- Two-year Warranty

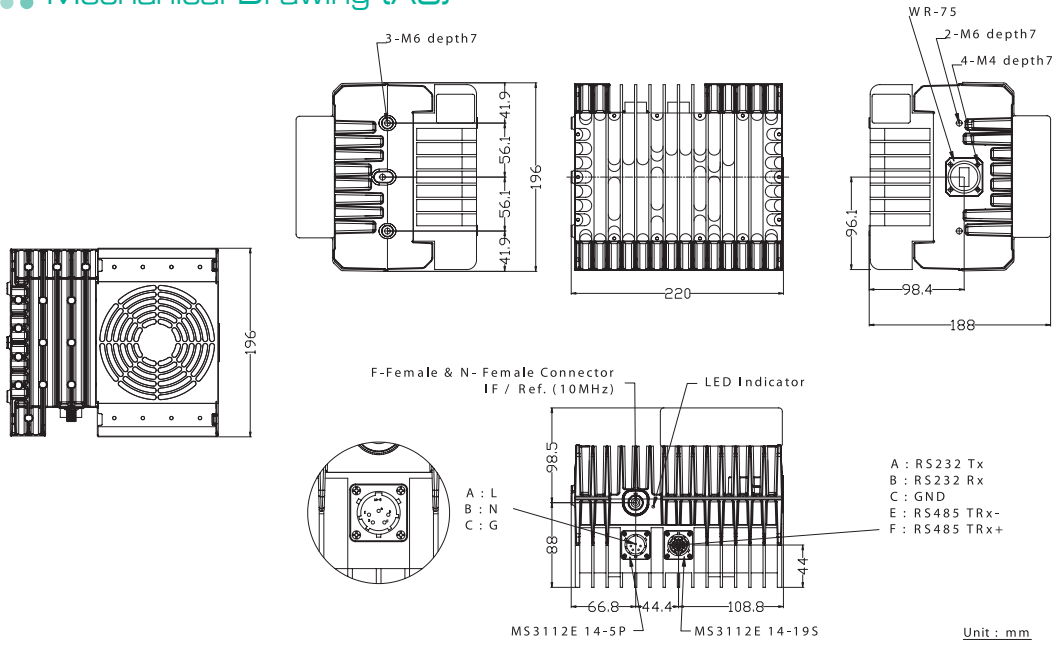


40W Ku-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TB46APF(N)E-09	40W Ku BUC Std. F/N Type	14.00-14.50	950-1450	+46dBm
TB46BPF(N)E-09	40W Ku BUC Low F/N Type	13.75-14.25	950-1450	+46dBm
TB46CPF(N)E-09	40W Ku BUC Ext. F/N Type	13.75-14.50	950-1700	+46dBm

09: MS Con. 85 ~ 265VAC
M9: MS Con. 85 ~ 265VAC, M&C

Mechanical Drawing (AC)



Low Ku-band BUC

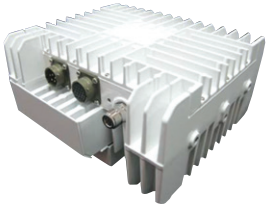
(for Yahsat-1A, Arabsat-5A, AMOS-5, Intelsat 70A)

F : 13.00-13.25GHz
G : 12.75-13.25GHz

2 / 4W

6W

8/10W



16/20/25/40W(AC)

Ku-band F&G Series BUC Specifications

Parameter	Unit	Specification								
		2W	4W	6W	8W	10W	16W	20W	25W	40W
Input Frequency	MHz	F : 950 ~ 1200 / G : 950 ~ 1450								
Output Frequency	GHz	F : 13.00 ~ 13.25 / G : 12.75 ~ 13.25								
LO Frequency	GHz	F : 12.05 / G : 11.8								
1dB Compression Point	dBm	33	36	37.8	39	40	42	43	44	46
Power Consumption	W	20	35	55	120 VAC:130	130 VAC:140	230 VAC:260	240 VAC:270	280 VAC:310	410 VAC:430
Operating Voltage	VDC	15 ~ 24			18~24VDC 36~60VDC 85~265VAC		36~60VDC / 85~265VAC			
Dimensions	mm	128.4X95.1X 58.3		176.1X 106.7X 65	220X 195X 104(DC)/ 149(AC)		170X120X110(DC) 220X196X182(AC)			220X195X 142(DC) 220X195X 188(AC)
Weight	Kg	0.7	0.7	1.8	4.5–DC/ DC 5.5–AC/DC Mounting Jig– Add up 1Kg		5–DC/DC 6–AC/DC Mounting Jig– Add up 1Kg			

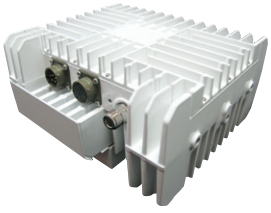
BUC for Terrestrial Microwave

D : 12.25-12.75GHz (LO 11.3GHz)
E : 11.7-12.5GHz (LO 10.75GHz)
L : 10.7-11.5GHz (LO 9.75GHz)

2W

4/6W

8 / 10W



16W

D / E / L Series BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TB33DPF(N)E-01	2W Ku-band BUC	12.25-12.75 (LO 11.3)	950-1450	+33dBm
TB36DPF(N)E-01	4W Ku-band BUC			+36dBm
TB39DPF(N)E-02	8W Ku-band BUC			+39dBm
TB40DPF(N)E-02	10W Ku-band BUC			+40dBm
TB42DPF(N)E-08	16W Ku-band BUC			+42dBm
TB33EPF(N)E-01	2W Ku-band BUC	11.7-12.5 (LO 10.75)	950-1750	+33dBm
TB36EPF(N)E-01	4W Ku-band BUC			+36dBm
TB39EPF(N)E-02	8W Ku-band BUC			+39dBm
TB40EPF(N)E-02	10W Ku-band BUC			+40dBm
TB33LPF(N)E-01	2W Ku-band BUC	10.7-11.5 (LO 9.75)	950-1750	+33dBm
TB36LPF(N)E-01	4W Ku-band BUC			+36dBm
TB38LPF(N)E-01	6W Ku-band BUC			+37.8dBm
TB39LPF(N)E-02	8W Ku-band BUC			+39dBm
TB40LPF(N)E-02	10W Ku-band BUC			+40dBm

3W Transceiver

VSAT™ Series are ideal for Broadband VSAT RF terminal.

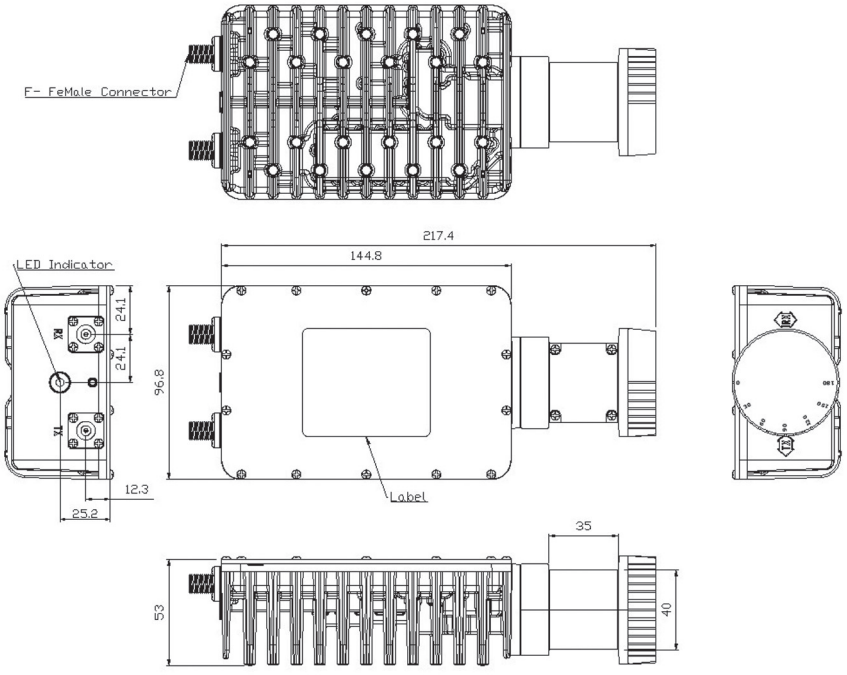
- All-in one including a feed horn
- Typical 34.7 dBm output power
- Light weight and compact
- Power Consumption (Max.): 20W
- LED Indicator
- RoHS Compliant
- Two-year Warranty

3W Transceiver Model

Model Number	Description	Tx Band(GHz)	Rx Band(GHz)	Output Power
EB34GPF(N)E-A1	3W transceiver with a feed horn, F/N Type	12.75-13.25	10.70-11.70	+34.7dBm

A1: Feed, F/D=0.65, B1: Feed, F/D=0.8

Mechanical Drawing



C-band Specifications

	Parameter		Unit	C – band									
				2W	5W	10W	20W	25W	30W	40W	50W	80W	100W
Input Characteristics	Frequency Range		MHz	A : 950 ~ 1525 B : 1150 ~ 1450 C : 975 ~ 1275									
	Impedance		Ohms	F–Connector : 75 or N–Connector : 50									
	Return Loss			2 : 1									
	Interface			F–Connector or N–Connector									
Output Characteristics	Frequency Range		GHz	A : 5.85 ~ 6.425 (Std.) B : 6.425 ~ 6.725 (Palapa) C : 6.725 ~ 7.025 (Insat)									
	1dB Compression Point		dBm	33	37	40	43	44	44.8	46	47	49	50
	Return Loss			2 : 1									
	Interface			CPR137G									
Transfer Characteristics	Frequency Sense			Non–inverted									
	Linear Gain	Typical	dB	58	61	65	69	70	71	72	73	75	76
	Gain Variation	Over 54 MHz	dB	1.5									
		Over the whole bandwidth		4									
		Over Operating Temperature		4									
	Spurious	In Band	dBc	–60									
		Out of Band		–50									
	Phase Noise (Typical)	100Hz	dBc/Hz	–65									
		1KHz		–75									
		10KHz		–85									
		100KHz		–95									
Miscellaneous	Operating Voltage		VDC	15 ~ 24		18 ~ 24 36 ~ 60 (Opt. MS Con.)	20~36 / 36~60 VDC 85~265 VAC (M&C Optional)			36~60 VDC 85~265 VAC (M&C Optional)		85~265 VAC (M&C Optional)	
		Max.	W	25	55	80	DC: 180 AC: 200	DC: 200 AC: 220	DC: 220 AC: 240	DC: 280 VC: 300	DC: 290 AC: 310	650	
	External 10MHz Reference Power Level		dBm	–5 to +5									
	Operating Temperature		℃	–40 ~ +55									
	Humidity			100% Condensing									
	Internal Function			Lock Detector shuts off Tx in case of LO unlocked									
	Dimensions		mm	176.1 X 161.5 X 65		220 X 194.2 X 103.5	220 X 196 X 136(DC) 220 X 196 X 182(AC)					235 X 190 X 145	
	Weight		Kg	1.8		4.5	5–DC/DC 6–AC/DC Mounting Jig – Add up 1kg					7.5	

Part number configuration

ⓐ Product ID
TA : C-band BUC
RA : Inverted C-band BUC

ⓑ Output Power
33 : 2W
37 : 5W
40 : 10W
43 : 20W
44 : 25W
45 : 30W
46 : 40W
47 : 50W
49 : 80W
50 : 100W

ⓒ C-band BUC Operating Frequency for Product ID, "TA"
A: 5.85~6.425GHz B: 6.425~6.725GHz
C: 6.725~7.025GHz D: 6.365~6.725GHz
E : 6.425~7.025GHz F : 5.85~6.725GHz

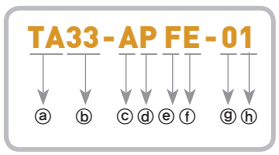
ⓓ Operating Temperature
O : -40 ~ +50 ℃ P : -40 ~ +55 ℃
Q : -40 ~ +60 ℃ R : -15 ~ +55 ℃

ⓔ Connector Type
F : F-type Connector
N : N-type Connector
S : SMA-type Connector

ⓕ Reference Source
E : External I : Internal

ⓖ Function
0 : Normal M : M&C Function

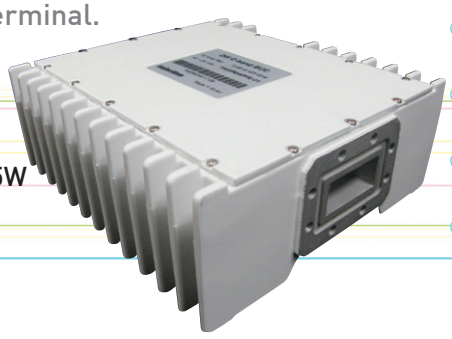
ⓗ DC Option
1 : 15 ~ 24 VDC
2 : 18 ~ 24 VDC
3 : 36 ~ 60 VDC
4 : 18 ~ 60 VDC
5 : MS Con. 18~60 VDC
6 : MS Con. 15 ~ 24 VDC
7 : MS Con. 18~24 VDC
8 : MS Con. 36 ~ 60 VDC
9 : MS Con. 85~265 VAC



2 / 5W C-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

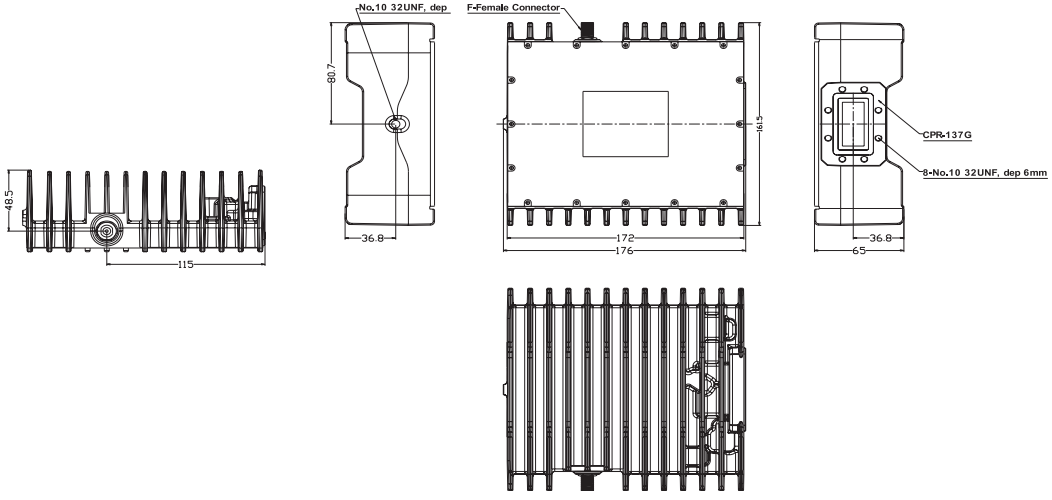
- 2W: 33dBm, 5W: 37dBm output power
- RoHS Compliant
- Optional Internal Reference source
- Low DC Power Consumption (Max.): 2W: 25W, 5W: 55W
- Full (Std.+Palapa / Palapa+Insat) band available
- Two-year Warranty



2 / 5W C-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TA33APF(N)E-01	2W Std. C-band BUC, F/N Type	5.850-6.425	950-1525	+33dBm
TA37APF(N)E-01	5W Std. C-band BUC, F/N Type	5.850-6.425	950-1525	+37dBm
TA33BPF(N)E-01	2W Palapa C-band BUC, F/N Type	6.425-6.725	1150-1450	+33dBm
TA37BPF(N)E-01	5W Palapa C-band BUC, F/N Type	6.425-6.725	1150-1450	+37dBm
TA33CPF(N)E-01	2W Insat C-band BUC,F/N Type	6.725-7.025	975-1275	+33dBm
TA37CPF(N)E-01	5W Insat C-band BUC,F/N Type	6.725-7.025	975-1275	+37dBm
TA33EPF(N)E-01	2W Full C-band BUC, (Palapa+Insat)	6.425-7.025	1150-1750	+33dBm
TA37EPF(N)E-01	5W Full C-band BUC, (Palapa+Insat)	6.425-7.025	1150-1750	+37dBm
TA33FPF(N)E-01	2W Full C-band BUC, (Std + Palapa)	5.85-6.725	950-1825	+33dBm
TA37FPF(N)E-01	5W Full C-band BUC, (Std + Palapa)	5.85-6.725	950-1825	+37dBm

Mechanical Drawing

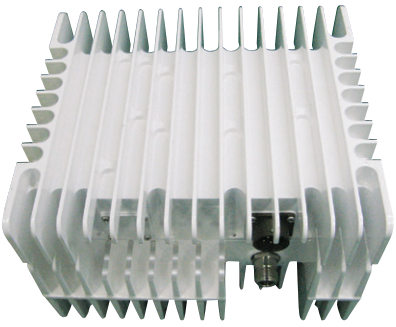


10W C-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

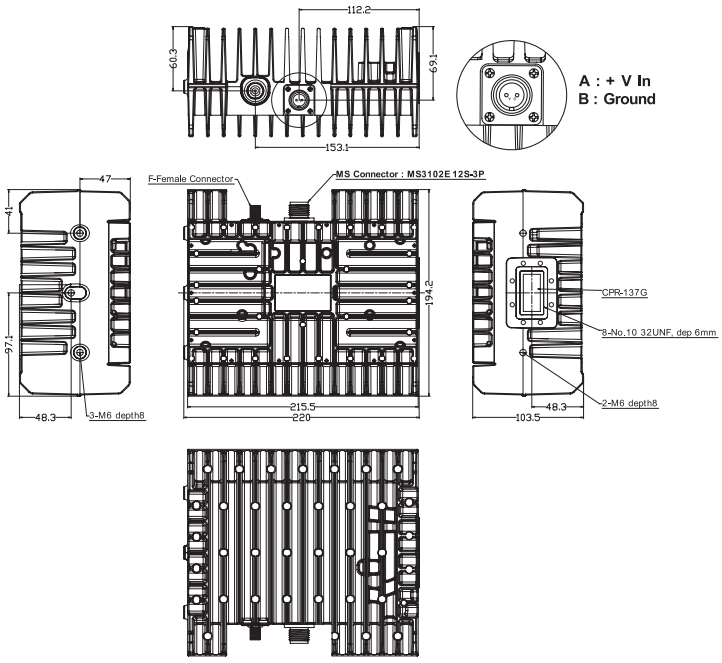
- 40dBm output power
- RoHS Compliant
- Optional Internal Reference source, MS Connector
- 18~24, 36~60VDC, 85~265VAC
- Power Consumption (Max.): DC 80W, AC 110W
- Two-year Warranty

DC Version



AC Version

Mechanical Drawing (DC)

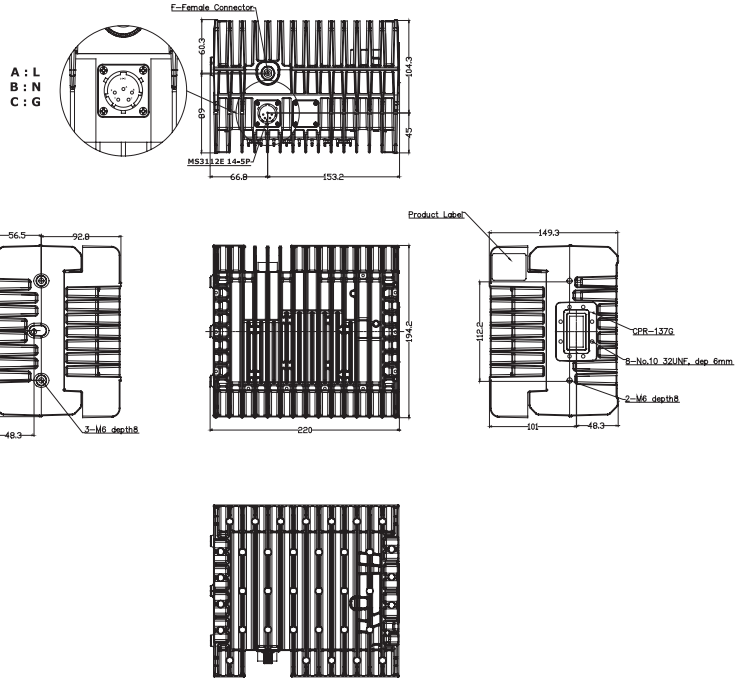


10W C-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TA40APF(N)E-02	10W, Std, F/N (Opt. MS Connector)	5.850-6.425	950-1525	+40dBm
TA40APF(N)E-03				
TA40BPF(N)E-02	10W, Palapa, F/N (Opt. MS Connector)	6.425-6.725	1150-1450	+40dBm
TA40BPF(N)E-03				
TA40CPF(N)E-02	10W, Insat, F/N (Opt. MS Connector)	6.725-7.025	975-1275	+40dBm
TA40CPF(N)E-03				
TA40EPF(N)E-02	10W, Full(Palapa+insat), F/N (Opt. MS Connector)	6.425-7.025	1150-1750	+40dBm
TA40EPF(N)E-03				
TA40FPF(N)E-02	10W, Full(Std+Palapa), F/N (Opt. MS Connector)	5.850-6.725	950-1825	+40dBm
TA40FPF(N)E-03				

02: 18 ~ 24VDC, 03: 36 ~ 60VDC, 07: MS con. 18 ~ 24VDC, 08: MS Con. 36 ~ 60VDC, 09: MS Con. 85 ~ 265VAC

Mechanical Drawing (AC)

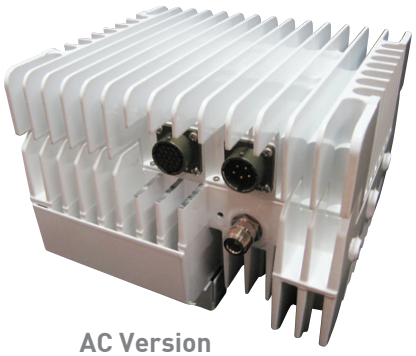


20 / 25 / 30 / 40 / 50W C-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

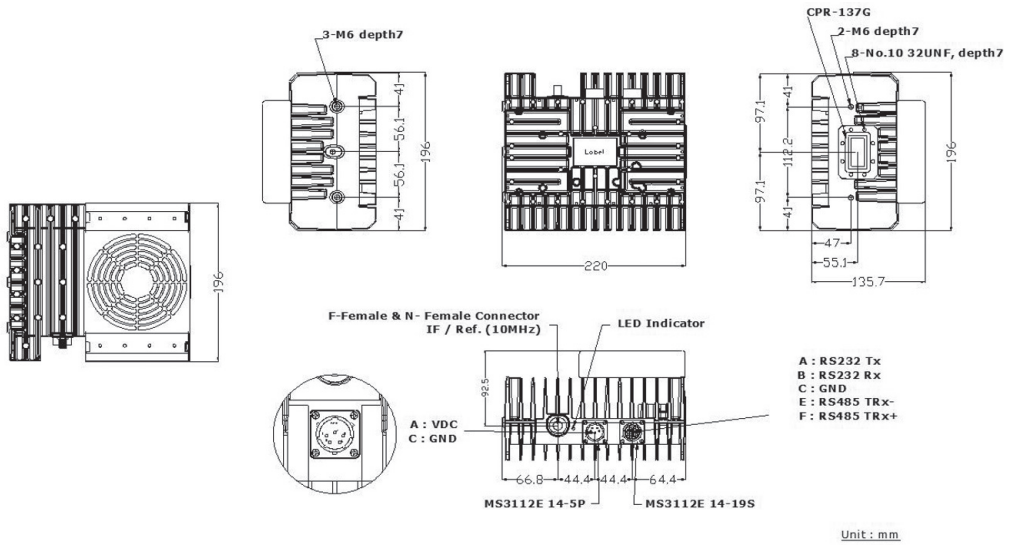
- 20W: 43, 25W: 44, 30W: 44.8, 40W: 46, 50W: 47dBm output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- 20~36VDC / 36~60VDC or 85~265VAC
- Power Consumption (Max.): 20W: DC 180W, AC 200W / 25W: DC 200W, AC 220W / 30W: DC 220W, AC 240W / 40W: DC 280W, AC 300W / 50W: DC 290W, AC 310W
- LED Indicator
- Two-year Warranty

DC Version



AC Version

Mechanical Drawing (DC)

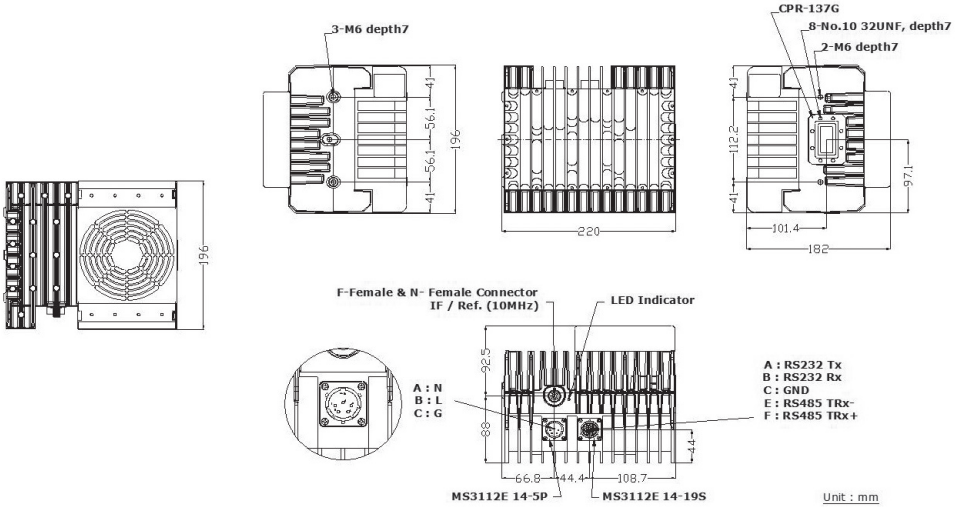


20 / 25 / 30 / 40 / 50W C-band BUC Model

Model Number	Description (dBm)	Output Power (GHz)	RF Band (MHz)	IF Band
TA43APF(N)E-/08/09	20W, Std.(A), F/N, MS Con.	43	A : 5.850-6.425	A : 950-1525
TA44APF(N)E-/08/09	25W Std.(A), F/N, MS Con.	44		
TA45APF(N)E-/08/09	30W, Std.(A), F/N, MS Con.	44.8		
TA46(47)APF(N)E-08/09	40W(50W), Std.(A), F/N, MS Con.	46 (47)		
TA43BPF(N)E-/08/09	20W, Palapa(B), F/N, MS Con.	43	B : 6.425-6.725	B : 1150-1450
TA44BPF(N)E-/08/09	25W, Palapa(B), F/N, MS Con.	44		
TA45BPF(N)E-/08/09	30W, Palapa(B), F/N, MS Con.	44.8		
TA46(47)BPF(N)E-08/09	40W(50W), Palapa(B), F/N, MS Con.	46 (47)		
TA43CPF(N)E-/08/09	20W, Insat(C), F/N, MS Con.	43	C : 6.725-7.025	C : 975-1275
TA44CPF(N)E-/08/09	25W, Insat(C), F/N, MS Con.	44		
TA45CPF(N)E-/08/09	30W, Insat(C), F/N, MS Con.	44.8		
TA46(47)CPF(N)E-08/09	40W(50W), Insat(C), F/N, MS Con.	46 (47)		
TA43FPF(N)E-/08/09	20W, Full(F), F/N, MS Con.	43	F : 5.850-6.725	F : 950-1825
TA44FPF(N)E-/08/09	25W, Full(F), F/N, MS Con.	44		
TA45FPF(N)E-/08/09	30W, Full(F), F/N, MS Con.	44.8		
TA46FPF(N)E-08/09	40W, Full(F), F/N, MS Con.	46		

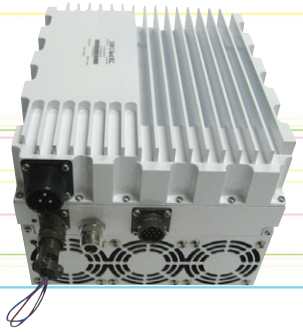
08: MS Con. 36 ~ 60VDC / 09: MS Con. 85 ~ 265VAC
M8: MS Con. 36 ~ 60VDC, M&C / M9: MS Con. 85 ~ 265VAC, M&C

Mechanical Drawing (AC)



80 / 100W C-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

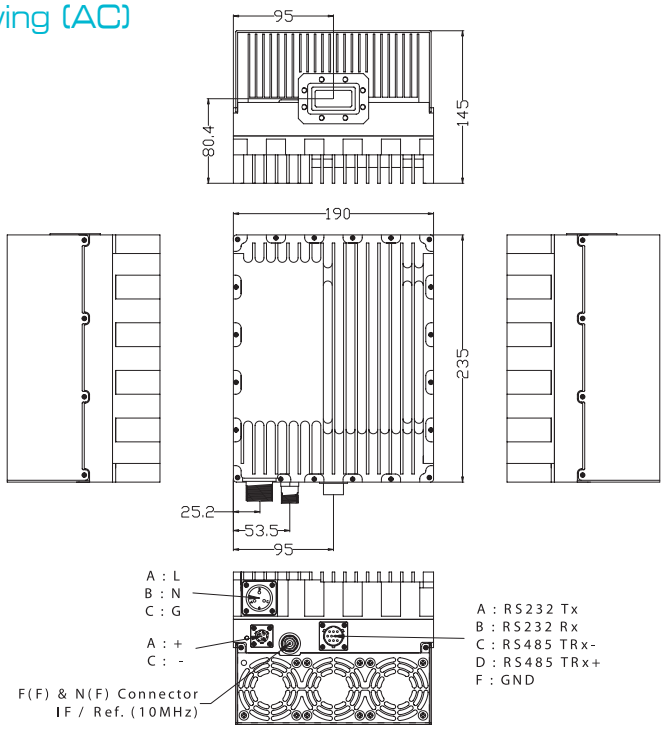


- 80W: 49dBm, 100W: 50dBm output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- 85~265VAC
- Power Consumption (Max.): 650W
- LED Indicator
- Two-year Warranty

80 / 100W C-band BUC Model

Model Number	Description	RF Band (GHz)	IF Band (MHz)	Output Power
TA49APF(N)E-09	80W, Std, F/N, MS Connector	5.850-6.425	950-1525	+49dBm
TA49BPF(N)E-09	80W, Palapa, F/N, MS Connector	6.425-6.725	1150-1450	+49dBm
TA49CPF(N)E-09	80W, Insat, F/N, MS Connector	6.725-7.025	975-1275	+49dBm
TA50APF(N)E-09	100W, Std, F/N, MS Connector	5.850-6.425	950-1525	+50dBm
TA50BPF(N)E-09	100W, Palapa, F/N, MS Connector	6.425-6.725	1150-1450	+50dBm
TA50CPF(N)E-09	100W, Insat, F/N, MS Connector	6.725-7.025	975-1275	+50dBm

Mechanical Drawing (AC)



X / Ka-band Specifications

	Parameter		Unit	X – band		Ka – band			
				10W	20W	2W	4W	7W	16W
Input Characteristics	Frequency Range		MHz	A : 950 ~ 1450		A : 950 ~ 1450 B/C : 950 ~ 1950		A : 950 ~ 1450	C : 950 ~ 1950
	Impedance		Ohms	F : 75 / N : 50		F–Conn. : 75 or N–Conn. :50			
	Return Loss			2 : 1		2 : 1			
	Interface			F–Conn. / N–Conn.		F–Connector or N–Connector			
Output Characteristics	Frequency Range		GHz	A : 7.9 ~ 8.4		A : 29.5 ~ 30.0 B : 29.0 ~ 30.0 C : 30.0 ~ 31.0		A : 29.5 ~ 30.0	C : 30.0 ~ 31.0
	1dB Compression Point		dBm	40	43	33	36	38.5	42
	Return Loss			2 : 1		2 : 1			
	Interface			CPR112G		WR28G			
Transfer Characteristics	Frequency Sense			Non–inverted		Non–inverted			
	Linear Gain		dB	65	69	55	58	65	70
	Gain Variation	Over 54 MHz	dB	1.5		1.5		1.5	
		Over the whole bandwidth		4		4		4	5
		Over Operating Temperature		4		4		4	5
	Spurious	In Band	dBc	–60		–60		–60	–50
		Out of Band		–50		–60		–50	–50
	Phase Noise (Typical)	100Hz	dBc/Hz	–65		–65		–65	–62
		1KHz		–75		–75		–75	–72
		10KHz		–85		–85		–85	–82
		100KHz		–95		–95			–92
Miscellaneous	Operating Voltage		VDC	36~60 VDC 85~265 VAC (M&C Optional)		15 ~ 30		36 ~ 60	36 ~ 60
	Power Consumption	Max.	W	DC: 110 AC: 130	DC: 220 AC: 240	35	60	130	250
	External 10MHz Reference Power Level		dBm	–5 to +5					
	Operating Temperature		℃	–40 ~ +55					
	Humidity			100% Condensing					
	Internal Function			Lock Detector shuts off Tx in case of LO unlocked					
	Dimensions		mm	220 X 195 X 104(DC)/149(AC)	220 X 195 X 136(DC)/182(AC)	176.1 X 161.5 X 65		170 X 120 X 110	190 X 155 X 98
	Weight		Kg	4.5–DC/DC 5.5–AC/DC Mounting Jig(+1kg)	5–DC/DC 6–AC/DC Mounting Jig(+1kg)	1.8		2.32	3.25

Part number configuration

ⓐ Product ID
TD : Ka-band BUC
TE : X-band BUC

TD33-APFE-04
ⓐ ⓑ ⓒⓓⓔⓕ ⓖⓗ

ⓑ Output Power
33 : 2W
36 : 4W
38.5 : 7W
40 : 10W
42 : 16W
43 : 20W

ⓕ Reference Source
E : External
I : Internal

ⓒ Ka-band BUC Operating Frequency for Product ID, "TD"
A : 29.5 ~ 30GHz B : 29 ~ 30GHz
C : 30 ~ 31GHz

ⓒ X-band BUC Operating Frequency for Product ID, "TE"
A : 7.9 ~ 8.4GHz

ⓓ Operating Temperature
O : -40 ~ +50 ℃ P : -40 ~ +55 ℃
Q : -40 ~ +60 ℃ R : -15 ~ +55 ℃

ⓔ Connector Type
F : F-type Connector
N : N-type Connector

ⓖ Function
0 : Normal M : M&C Function

ⓗ DC Option
1 : 15 ~ 24 VDC
3 : 36 ~ 60 VDC
4 : 18 ~ 60 VDC
5 : MS Con. 18~60 VDC
8 : MS Con. 36 ~ 60 VDC
9 : MS Con. 85~265 VAC
B: 15 ~ 30 VDC

2 / 4W Ka-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

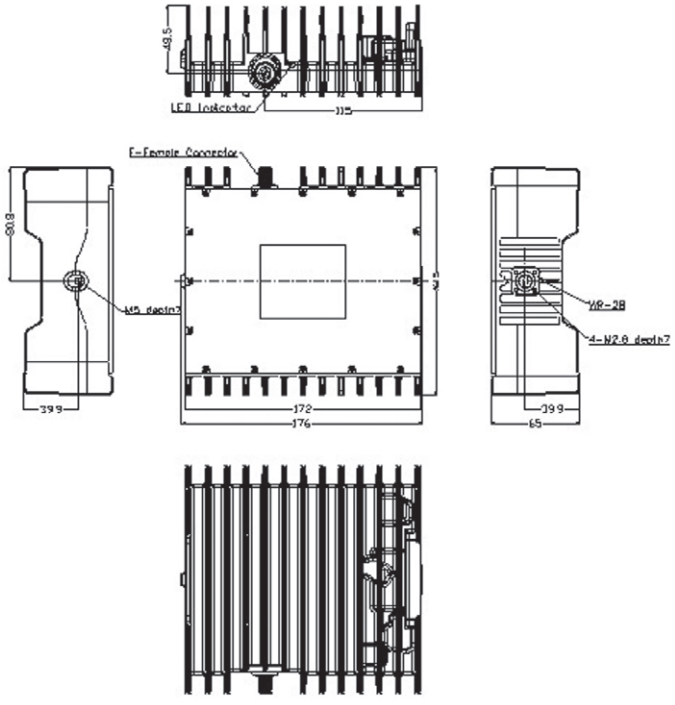
- 33/36dBm output power
- Optional Internal Reference
- RoHS Compliant
- Small Size & Mass
- Power Consumption (Max.): 2W: 35W, 4W: 60W
- LED Indicator
- Two-year Warranty

2 / 4W Ka-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TD33APF(N)E-0B	2W Ka-band BUC, F/N Type	29.5-30.0	950-1450	+33dBm
TD36APF(N)E-0B	4W Ka-band BUC, F/N Type			+36dBm
TD33BPF(N)E-0B	2W Ka-band BUC, F/N Type	29.0-30.0	950-1950	+33dBm
TD36BPF(N)E-0B	4W Ka-band BUC, F/N Type			+36dBm
TD33CPF(N)E-0B	2W Ka-band BUC, F/N Type	30.0-31.0	950-1950	+33dBm
TD36CPF(N)E-0B	4W Ka-band BUC, F/N Type			+36dBm

0B: 15 ~ 30VDC

Mechanical Drawing



7W Ka-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

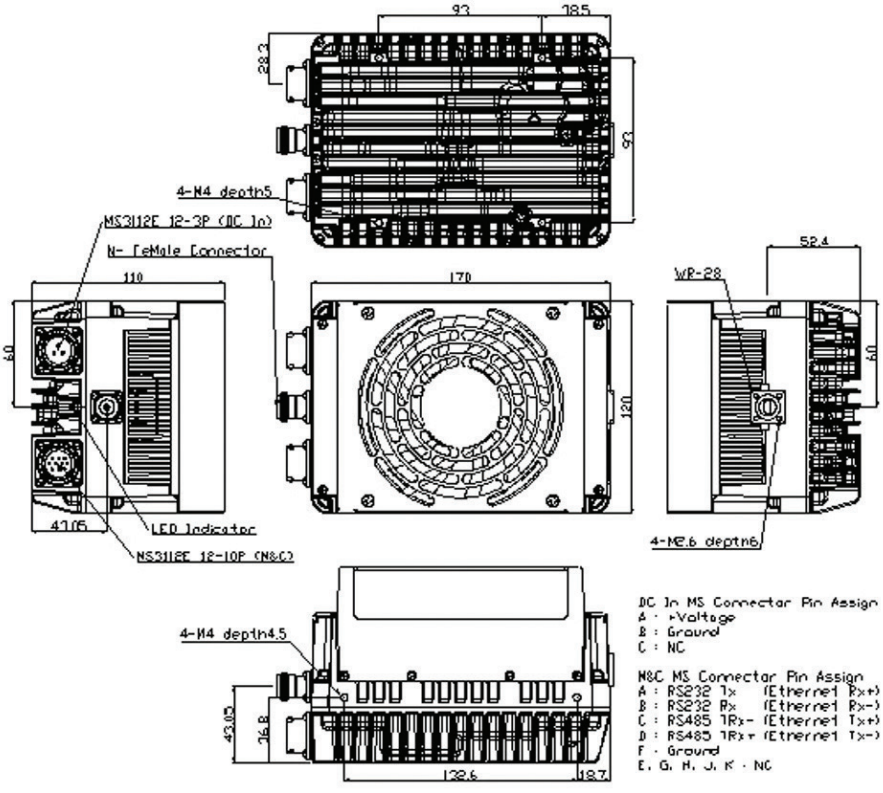
- 38.5dBm(Min.) output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- Small Size & Mass
- Power Consumption (Max.): 130W
- LED Indicator
- Two-year Warranty

7W Ka-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TD385APFE-03/08	7W Ka-band BUC, F/N Type	29.5-30.0	950-1450	38.5dBm
TD385APFE-03/08				

03: 36 ~ 60 VDC / 08: MS Con. 36 ~ 60VDC

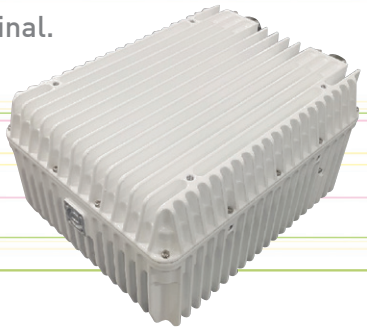
Mechanical Drawing



16W Ka-band BUC

VSAT™ Series are ideal for Broadband VSAT RF terminal.

- 42dBm(Typ.) output power
- Optional Internal Reference source and M&C
- RoHS Compliant
- Small Size & Mass
- Power Consumption (Max.): 250W
- LED Indicator
- Two-year Warranty

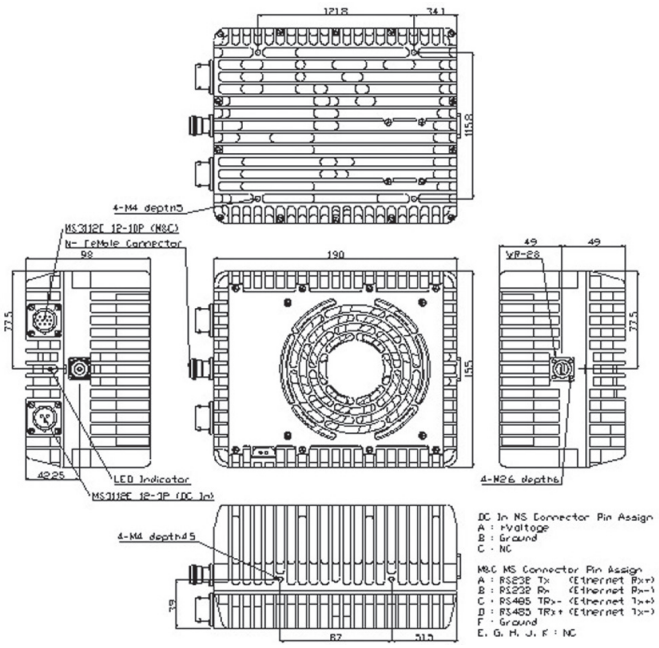


16W Ka-band BUC Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
TD42CPFE-08	16W Ka-band BUC, F/N Type	30-31	950-1950	42dBm
TD42CPNE-08				

08: MS Con. 36 ~ 60VDC

Mechanical Drawing



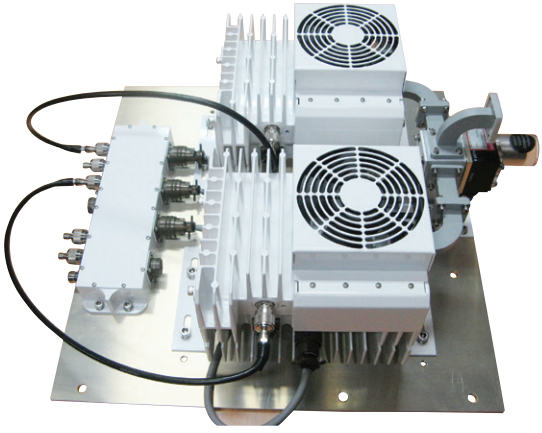
1:1 Redundant Transceiver Control System

- Single BUC output up to 40W for C/Ku-band
- Remote monitoring via serial interface
- PC software control the redundant system
- The lightest BUC
- Redundant Transceiver with Controller

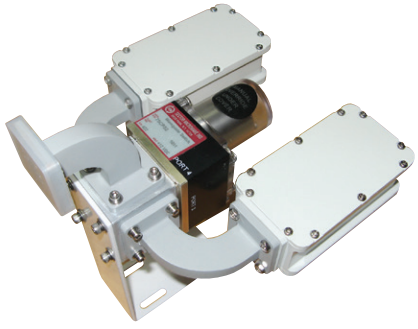
C / Ku Redundant Transceiver Control System Model

Model Number	Description	RF Band(GHz)	IF Band(MHz)	Output Power
R-TA43APF(N)E-M9/NEX325	20W C BUC, Std, F/N	5.85-6.425	950-1525	+43dBm
R-TA44APF(N)E-M9/NEX325	30W C BUC, Std, F/N	5.85-6.425	950-1525	+44.8dBm
R-TA46APF(N)E-M9/NEX325	40W C BUC, Std, F/N	5.85-6.425	950-1525	+46dBm
R-TB42APF(N)E-M9/NEX520	16W Ku BUC, Std, F/N	14.0-14.5	950-1450	+42dBm
R-TB42CPF(N)E-M9/NEX520	16W Ku BUC, Ext, F/N	13.75-14.5	950-1700	+42dBm
R-TB43APF(N)E-M9/NEX520	20W Ku BUC, Std, F/N	14.0-14.5	950-1450	+43dBm
R-TB43CPF(N)E-M9/NEX520	20W Ku BUC, Ext, F/N	13.75-14.5	950-1700	+43dBm
R-TB44APF(N)E-M9/NEX520	25W Ku BUC, Std, F/N	14.0-14.5	950-1450	+44dBm
R-TB44CPF(N)E-M9/NEX520	25W Ku BUC, Ext, F/N	13.75-14.5	950-1700	+44dBm
R-TB46APF(N)E-M9/NEX520	40W Ku BUC, Std, F/N	14.0-14.5	950-1450	+46dBm
R-TB46CPF(N)E-M9/NEX520	40W Ku BUC, Ext, F/N	13.75-14.5	950-1700	+46dBm

M9: MS Con. 85 ~ 265VAC, M&C



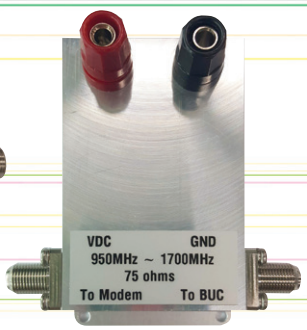
1:1 BUC Plate Assembly with Controller



1:1 LNB Assembly

Bias Tee

- "N" or "F" RF Interface Options
- Up to 6 Amps DC input
- RoHS Compliant
- Two-year Warranty

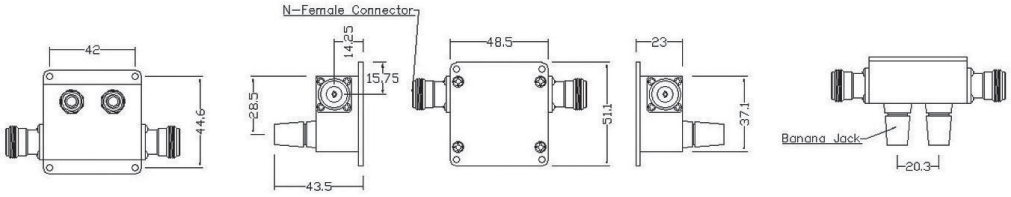


Bias Tee Model

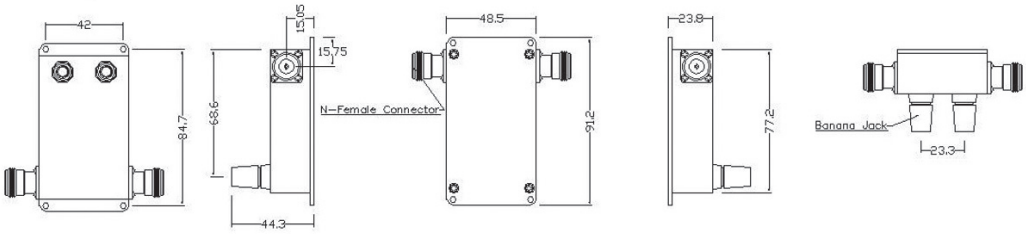
Model Number	Description	Bandwidth (MHz)	Power Input
BT-DC1700M	Stable Against High Power	950-1700	15-60 VDC
BT-DC1700M-10MHz	High Stability (10⁸)10MHz Injection	950-1700	15-64 VDC

Mechanical Drawing

without 10MHz



with 10MHz



Satellite Products-LNB

(Low Noise Block Down Converter)

NEX-300X

NEX-520

Model	Model No.	Stability	Remarks
C DRO LNB	NEX-800	+/-500KHz	3.4-4.2 GHz,LO=5.15GHz
	NEX-800I		4.5-4.8GHz, LO=5.95GHz
	NEX-800R		3.7-4.2GHz, LO=5.15GHz
C Int. PLL LNB	NEX-305	+/-5KHz	3.4-4.2 GHz, LO=5.15GHz
	NEX-310	+/-10KHz	3.4-4.2GHz, LO=5.15GHz
	NEX-325	+/-25KHz	3.4-4.2GHz, LO=5.15GHz
C Ext. PLL LNB	NEX-300X		3.4-4.2GHz, LO=5.15GHz
	NEX-300XI		4.5-4.8GHz, LO=5.76GHz
X Int. PLL LNB	NEX-100	+/-12.5KHz	7.25-7.75GHz, LO=6.3GHz
X Ext. PLL LNB	NEX-100X		7.25-7.75GHz, LO=6.3GHz
Ku DRO LNB	NEX-5151	+/-500KHz	10.7-11.8GHz, LO=9.75GHz
	NEX-5251		10.95-11.7GHz, LO=10.0GHz
	NEX-5351		11.71-12.01GHz, LO=10.678GHz
	NEX-5451		11.7-12.2GHz, LO=10.75GHz
	NEX-5451W		11.7-12.75GHz, LO=10.75GHz
	NEX-5551		12.25-12.75GHz, LO=11.2GHz
	NEX-5651		12.2-12.7GHz, LO=11.25GHz
	NEX-5751		12.25-12.75GHz, LO=11.3GHz
Ku Int. PLL LNB	NEX-510	+/-25KHz	10.7-11.8GHz, LO=9.75GHz
	NEX-520		10.95-11.7GHz, LO=10.0GHz
	NEX-540		11.7-12.2GHz, LO=10.75GHz
	NEX-550		12.25-12.75GHz, LO=11.2GHz
	NEX-560		12.2-12.7 GHz, LO=11.25GHz
	NEX-570		12.25-12.75 GHz, LO=11.3GHz
Ku Ext. PLL LNB	NEX-500X		11.7-12.5GHz, LO=10.75GHz
	NEX-520X		10.95-11.7GHz, LO=10.0GHz
	NEX-540X		11.7-12.2GHz, LO=10.75GHz
	NEX-560X		12.2-12.7GHz, LO=11.25GHz
	NEX-570X		12.25-12.75GHz, LO=11.3GHz
Ka DRO LNB	NEX-210	+/-500KHz	18.0-18.65 GHz, LO=17.05GHz
	NEX-215		18.127-18.777GHz, LO=17.177GHz
	NEX-220		18.2-18.85 GHz, LO=17.25GHz
	NEX-230		19.2-19.85 GHz, LO=18.25GHz
	NEX-240		20.2-20.85 GHz, LO=19.25GHz
	NEX-250		21.2-21.85 GHz, LO=20.25GHz
Ka Int.PLL LNB	NEX-990A	+/-70KHz	18.2-19.2 GHz, LO=17.25GHz
	NEX-990B		19.2-20.2 GHz, LO=18.25GHz
	NEX-990C		20.2-21.2 GHz, LO=19.25GHz
	NEX-990D		21.2-22.2 GHz, LO=20.25GHz
Ka Ext. PLL LNB	NEX-990XA		18.2-19.2 GHz, LO=17.25GHz
	NEX-990XB		19.2-20.2 GHz, LO=18.25GHz
	NEX-990XC		20.2-21.2 GHz, LO=19.25GHz
	NEX-990XD		21.2-22.2 GHz, LO=20.25GHz
C-Band LNA	NEX-910		3.4 - 4.2 GHz
X-Band LNA	NEX-920		7.25 - 7.75 GHz
Ku-Wide Band LNA	NEX-931		10.7 - 12.75 GHz
Ku-Low Band LNA	NEX-932		10.7 - 11.7 GHz
Ku-High Band LNA	NEX-933		11.7 - 12.75 GHz
Ka-Band LNA	NEX-940		20.2 - 21.2 GHz

Power Supply

Power Supply Model

Model	Model No.
200W–24V	NGDCP200–24V
200W–48V	NGDCP200–48V
350W–24V	NGDCP350–24V
350W–48V	NGDCP350–48V
400W–48V	NGDCP400–48V
500W–48V	NGDCP500–48V
600W–48V	NGDCP600–48V

NGDCP200 Series

NGDCP350 Series

NGDCP500 Series

Power Supply

Nexgenwave Generic BUC's'

Ku-band BUC Series

- **A series** : 14.0-14.5 GHz (LO=13.05 / 15.45GHz)
- **B series** : 13.75-14.25 GHz (LO=12.80 / 15.2GHz)
- **C series** : 13.75-14.5 GHz (LO=12.80 / 15.45GHz)
- **D series** : 12.25-12.75 GHz (LO=11.30GHz)
- **E series** : 11.7-12.5 GHz (LO=10.75GHz)
- **F series** : 13.0-13.25 GHz (LO=12.05GHz)
- **G series** : 12.75-13.25 GHz (LO=11.80GHz)
- **H series** : 10.38-10.55 GHz (LO=9.43GHz)
- **I series** : 12.25-13.0 GHz (LO=11.30GHz)
- **J series** : 14.6-15.4 GHz (LO=13.65GHz)
- **K series** : 11.75-12.5 GHz (LO=10.80GHz)
- **L series** : 10.7-11.5 GHz (LO=9.75GHz)
- **M series** : 11.835-12.180 GHz (LO=10.885GHz)
- **N series** : 13.25-13.75 GHz (LO=12.30GHz)
- **O series** : 17.3-17.7 GHz (LO=16.35GHz)
- **P series** : 17.7-18.1 GHz (LO=16.35GHz)
- **Q series** : 17.3-18.1 GHz (LO=16.35GHz)
- **R series** : 14.5-14.8 GHz (LO=13.55GHz)
- **S series** : 18.1-18.4 GHz (LO=16.95GHz)

Nexgenwave Generic BUC's'

C-band BUC Series

- **A series** : 5.85-6.425GHz [LO=4.9GHz]
- **B series** : 6.425-6.725GHz [LO=5.275GHz]
- **C series** : 6.725-7.025GHz [LO=5.75GHz]
- **D series** : 6.365-6.725GHz [LO=5.29 / 7.8GHz]
- **E series** : 6.425-7.025GHz [LO=5.275GHz]
- **F series** : 5.85-6.725GHz [LO=4.9GHz]

X-band BUC Series

- **A series** : 7.9-8.4GHz [LO=6.95GHz]

K-band BUC Series

- **A series** : 19.05-19.55GHz [LO=18.1GHz]

Ka-band BUC Series

- **A series** : 29.5-30GHz [LO=28.55GHz]
- **G series** : 30-30.5GHz [LO=29.05GHz]

Company

NexGenWave is a leading manufacturer of VSAT RF terminals such as C/Ku/Ka-band BUC and LNB. Having more than cumulative experience of 50 years in the area of RF and satellite payload components, the company is committed to serve the industry with highest quality yet affordable products, contributing the VSAT business to be competitive to its terrestrial alternatives.

Products & Services

- Broadband Wireless Telecommunications Solutions
- Microwave Radio Transmitters and Receivers
- OEM/ODM Manufacturing

Delivery

NexGenWave's well funded inventory stock allows one week lead time on most of volume order requirements

Warranty

NexGenwave provides basic 2 year warranty and endeavors 48 hours turnaround time for warranty replacement

Quality

NexGenWave products are manufactured under ISO9001:2008 quality certified facility


CreBIZ QM

QUALITY MANAGEMENT SYSTEM CERTIFICATE

QA090328

NEXGENWAVE CO., LTD.

KS Q ISO 9001 : 2009 / ISO 9001 : 2008

Design, Development and Manufacture of Microwave Components and Sub-System in field of Telecommunication

Valid until : 16th December, 2012 Date : 17th December, 2009

CreBIZ QM

President CreBizQM

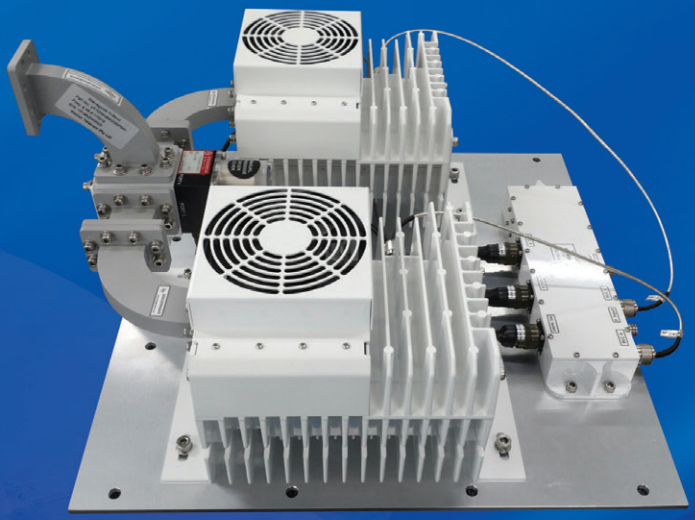
ISO9001 Registered

REACh

NexGenWave has been registered ISO9001:2008 since 1st November 2005.

Our goal is to provide zero defect products in time with low cost to the customer

Technology for Next Generation



NEXGENWAVE

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