MODEL MBUC14125S57A
OUTPUT: 13.75~14.5 GHz
500 Watt
KU-BAND BLOCK UP-CONVERTER

Advantages:

- Integrated BUC for Better Performance & Reliability
- Monitoring & Controlling
- Tricolour LED Status Indicator to Identify BUC Status Instantly

ELECTRICAL SPECIFICATIONS

Parameter		Specifications	
IF Frequency Range		950 ~1700 MHz	
Output Frequency Range		13.75~14.5 GHz	
LO Frequency		12.8 GHz	
Saturated Output Power		57 dBm (Min)	
Power Gain @ Pin=-20dBm		77 dB (Min)	
Power Gain Flatness		±1 dB	
Small Signal Gain @Pin=-40dBm		87 dB (Typ)	
Small Signal Gain Flatness		±2 dB	
IM3 @Pout = 50dBm (two tones, 5MHz)		-25 dBc (Max)	
Spurious		-55dBc (Typ)	
Gain control Range		20dB Variable, Step size of 0.25dB	
Phase Noise	100Hz	≤-63 dBc/Hz	
	1kHz	≤-73 dBc/Hz	
	10kHz	≤-83 dBc/Hz	
	100kHz	≤-93 dBc/Hz	
	1MHz	≤-103 dBc/Hz	
Input VSWR		1.5:1 (typ)	
Output VSWR		1.3:1 (Max)	
Input/Input Impedance		50 Ω	
External Reference Input		Frequency	10MHz
		Power	-5 to 5 dBm (Unit will automatically switch to internal reference if external reference level falls below -10 dBm nominal)
		Phase Noise	-135dBc/Hz@100Hz max. -145dBc/Hz@1kHz max. -155dBc/Hz@10kHz max.
M&C Function Interface		Ethernet (default), optional RS485/232	
LED Function		Green: Normal, Red: Fault, Blue: PA Off	
Command Function		PA On/Off, Gain Control, Out-of-lock Alarm, Temperature, Over- VSWR Protection, Summary Alarm	

Protection and Warning Function

No	Specifications
1	Unlock protection/ Warning
2	Over-current protection/ Warning
3	Over-voltage protection/ Warning
4	Over-temperature protection/ Warning
5	Over-reflection protection/ Warning

Interface

Tag	Specifications	Connector model
IF/ REF IN	IF/ REF input	N
RF OUT	Output	WR-75G
M&C	LAN	Circle Connector
Power AC 220V	Power supply	Circle Connector

Power AC 220V Interface Connector (3pin Circle Connector)

PIN	Description	Connector model
1	220VAC-N	220VAC Neutral wire
2	220VAC-L	220VAC Live wire
3	220VAC-PE	220VAC GND wire

Operating Power Requirement

Parameter	Specifications
Operating Voltage	180~230VAC, 220VAC (Typ) 50Hz
Power Consumption	2800 Watts (Typ)

Environmental Conditions

Parameter	Specifications
Operating Temperature	-40°C to +60°C
Storage Temperature	-50°C to +70°C
Humidity	0 to 95%
Water proof/ Dust proof	IP65

Mechanical

Parameter	Specifications
Dimensions (L x W x H)	330 x 200 x 280(mm)
Weight	18kg
Paint	RAL7035(GRAY)

Absolute Maximum Ratings

Parameter	Specifications
IF input power	≤5dBm
Load VSWR @RF OUT	VSWR≤5:1(assured by design)
Thermal Degradation	85℃ @ heatsink

Version. 1.0 _2026.03.21