MODEL MBUC14125S47A
OUTPUT: 13.75~14.5GHz
50 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		47 dBm (Min)	
Power Gain @ Pin=-20dBm		67 dB (Min)	
Power Gain Flatness		±1 dB (Typ)	
Small Signal Gain @Pin=-40dBm		77 dB (Typ)	
Small Signal Gain Flatness		±2 dB (Typ)	
IM3 @Pout = 40dBm (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(Optional)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

Parameter	Specifications	Connector model
IF/ REF IN	IF/ REF input	N
RF OUT	Output	WR-75G
M&C	LAN	Circle Connector
Power DC 28V	Power supply	Circle Connector

Power DC Interface Connector (4pin Circle Connector)

PIN	Description	Connector model
1,2	28VDC	
3,4	GND	

Operating Power Requirement

PIN	Specifications
Operating Voltage	24~30VDC, 28VDC (Typ)
Power Consumption	250 Watts (Typ)

Environmental Conditions

PIN	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)	150 x 100 x 90(mm)
Weight	3kg
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