# MODEL MBUC14275S43A
# OUTPUT: 13.75~14.8 GHz
# 20 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 ~2000 MHz | |
| Output Frequency Range | | 13.75~14.8 GHz | |
| LO Frequency | | 12.8 GHz | |
| Saturated Output Power | | 43 dBm (Min) | |
| Power Gain @ Pin=-20dBm | | 63 dB (Min) | |
| Power Gain Flatness | | ±1 dB (Typ) | |
| Small Signal Gain @Pin=-40dBm | | 73 dB (Typ) | |
| Small Signal Gain Flatness | | ±2 dB (Typ) | |
| IM3 @Pout = 36dBm (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.<br>-145dBc/Hz@1kHz max.<br>-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 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

| Parameter | Specifications |
|---|---|
| Operating Voltage | 24~30VDC, 28VDC (Typ) |
| Power Consumption | 120 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) | 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 |