



## AUC68 Wideband Series

Ku-Band to L-Band Down Converter

### Features

- Wideband (10.70 to 12.75GHz)
- Compact unit, complete in a single 1 RU package
- Full monitoring and control through LCD and keypad front panel or serial remote
- User selectable spectrum inversion
- Flexible design for various user's configurations
- RS232, RS485 and Ethernet interface for remote M&C
- Built-in 1+1 configuration

### Quality Assurance

All Agilis IDUs are designed and manufactured according to ISO 9001 Standard.

### Reliability

Field proven with system deployed worldwide, Agilis IDU can withstand temperature from 0°C to +50°C up to 95% non-condensing humidity.

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## Technical Specifications

### Input Parameters

|                 |                   |
|-----------------|-------------------|
| Input Frequency | 10.70 to 12.75GHz |
| Impedance       | 50Ω               |
| Return Loss     | 20dB              |
| Input Power     | 15dBm             |

### Output Parameters

|                  |                                   |
|------------------|-----------------------------------|
| Output Frequency | 950-1700MHz (with band selection) |
|------------------|-----------------------------------|

|        | Frequency        | LO        |
|--------|------------------|-----------|
| Band 1 | 10.7 - 11.75GHz  | (9.75GHz) |
| Band 2 | 11.75 - 12.25GHz | (10.8GHz) |
| Band 3 | 12.25 - 12.75GHz | (11.3GHz) |

|                                |           |
|--------------------------------|-----------|
| Impedance                      | 50Ω       |
| Return Loss                    | 18dB      |
| Output Power @P <sub>1dB</sub> | +5dBm min |

### Transfer Parameters

|                                      |  |
|--------------------------------------|--|
| Conversion Gain                      | 33dB min   |
| Gain Adjustment                      | 30dB with 0.5dB step   |
| Gain Flatness                        | ±0.75dB over 36 MHz Bandwidth<br>±1.5dB over Full Bandwidth              |
| Gain Stability                       | ±0.25dB over 24 hours at constant temperature                            |
| Noise Figure                         | 15dB   |
| In Band Spurious                     |  |
| Carrier dependent                    | -60dBc at max gain   |
| Carrier Independent                  | -70dBm max   |
| Third order intermodulation products | 45dBc @ 2 carriers 2MHz apart, 8dB back off from Prated for each carrier |
| Phase Noise                          |  |
| @100Hz                               | -73dBc/Hz  |
| @1KHz                                | -83dBc/Hz  |
| @10KHz                               | -90dBc/Hz  |
| @100KHz                              | -95dBc/Hz  |
| @1MHz                                | -95dBc/Hz  |

### Rear Panel Connections

|                                    |  |
|------------------------------------|--|
| IF/L Output                        | BNC Female (for Ku to IF)<br>N-Type Female (for Ku to L) |
| RF Band Input                      | SMA Female   |
| 10MHz Ext REF Connector (Optional) | BNC Female   |
| Remote Connector                   | DB 9 Female  |
| Power IN                           | AC/DC  |

### Monitor and Control

|                       |  |
|-----------------------|--|
| Interface             | RS232/ RS485/ Ethernet   |
| Monitoring parameters | LO & Temperature Alarms  |
| Control Parameters    | Gain Adjustment @ 0.5dB Step   |
| Redundancy            | Built-in two down converters with redundancy control card in 1U chassis. |

### Power Supply Requirement

|                   |                      |
|-------------------|----------------------|
| AC Input Voltage  | 90 to 264VAC 50/60Hz |
| Power Consumption | 30W                  |

### Environmental

|                       |                            |
|-----------------------|----------------------------|
| Operating temperature | 0°C to 50°C                |
| Humidity              | up to 95% (Non-condensing) |

### Mechanical

|           |                      |
|-----------|----------------------|
| Dimension | 480L x 460W x 44H mm |
| Weight    | 3.5kg                |

\*All specifications are subject to change without notice.  
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