

## SATCOM RECEIVER

# LNB

## Ku Dual-band PLL LNB M-RD1000I



### TYPICAL SPECIFICATIONS

|                        |                                                                                                                       |                              |                                                                       |
|------------------------|-----------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------------------------------------------------|
| <b>Noise Figure</b>    | 0.9 dB @+23°C                                                                                                         | <b>Spurious</b>              |                                                                       |
| <b>LO stability</b>    | ±5 to ±25 KHz                                                                                                         | <b>Signal related</b>        | -45dBc max @-5dBm                                                     |
| <b>Phase noise</b>     | -63dBc/Hz @100Hz<br>-70dBc/Hz @1KHz<br>-80dBc/Hz @10KHz<br>-90dBc/Hz @100KHz<br>-120dBc/Hz @1MHz<br>-120dBc/Hz @10MHz | <b>Power supply related</b>  | -45dBc max @-5dBm                                                     |
| <b>Input VSWR</b>      | 1.9 : 1                                                                                                               | <b>Harmonics</b>             | -30dBc max @-5dBm                                                     |
| <b>Output VSWR</b>     | 2.0 : 1                                                                                                               | <b>LO leakage (Input)</b>    | -70dBm max                                                            |
| <b>Conversion gain</b> | 65dB typ                                                                                                              | <b>Image rejection</b>       | 50dBc min (Band-1)<br>40dBc min (Band-2)                              |
| <b>Gain flatness</b>   | ±3dB max                                                                                                              | <b>Switching voltage</b>     | +13V (Band-1), +18V (Band-2)                                          |
| <b>Output P1dB</b>     | +10dBm min                                                                                                            | <b>DC voltage / current</b>  | +11.5 to +14.0 V (Band-1)<br>+16.0 to +19.0 V (Band-2)<br>/ 400mA typ |
| <b>IP3</b>             | +20dBm min                                                                                                            | <b>Input waveguide</b>       | WR-75                                                                 |
| <b>RF input level</b>  | -30dBm max                                                                                                            | <b>Output connector</b>      | N-female, F-female, SMA-female                                        |
|                        |                                                                                                                       | <b>Dimension</b>             | 103(L) x 54(W) x 40(H) mm                                             |
|                        |                                                                                                                       | <b>Weight</b>                | 360g                                                                  |
|                        |                                                                                                                       | <b>Operating temperature</b> | -54 to 71°C                                                           |

### FREQUENCY BANDS AVAILABLE

|                | Band-1        |               | Band-2        |
|----------------|---------------|---------------|---------------|
|                | C             | C1            | A3            |
| RF freq. (GHz) | 10.95 - 11.70 | 10.70 - 11.70 | 11.70 - 12.75 |
| LO freq. (GHz) | 10.00         | 9.75          | 10.75         |
| IF freq. (MHz) | 950 - 1700    | 950 - 1950    | 950 - 2000    |

### HOW TO ORDER Ku DUAL-BAND PLL LNB

## M-RD1109ICA3N

\* Other frequency bands can be available upon request.

|                  |                                                     |                    |                   |
|------------------|-----------------------------------------------------|--------------------|-------------------|
| Output connector | <b>N</b> : 50Ω, <b>F</b> : 75Ω, <b>S</b> (SMA): 50Ω |                    |                   |
| Frequency band   | <b>C/C1</b> (Band-1), <b>A3</b> (Band-2)            |                    |                   |
| 10MHz reference  | <b>I</b> : Internal PLL                             |                    |                   |
| Noise figure     | <b>09</b> : 0.9dB                                   |                    |                   |
| LO stability     | <b>1</b> : ±5KHz,                                   | <b>2</b> : ±10KHz, | <b>3</b> : ±25KHz |
| Product          | <b>RD1</b> : Ku Dual-band LNB series                |                    |                   |
| Application      | <b>M</b> : Mobile application                       |                    |                   |

**SATCOM RECEIVER****OUTLINE DRAWING**