

### **Innovative Communication Solutions**

# 7200HDCN 7000 Dual-Band Ka-Band PLL LNB

Frequency: C: 18.40 - 19.40 GHz | 19.20 - 20.20 GHz L.O. Stability: +/- 25 kHz Output Connector: N: 50 Ohm







## **KEY SPECIFICATIONS**

| Band                    | Ka-Band           |
|-------------------------|-------------------|
| Input Frequency Band 1  | 18.40 - 19.40 GHz |
| Input Frequency Band 2  | 19.20 - 20.20 GHz |
| LO Frequency 1          | 17.45 GHz         |
| LO Frequency 2          | 18.25 GHz         |
| LO Stability            | ±25 kHz           |
| LO Туре                 | PLL               |
| Noise Figure Max        | 1.5 dB            |
| Noise Figure Typ        | 1.3 dB            |
| Number Of Onboard Los   | Dual-Band         |
| Output Frequency Band 1 | 950 - 1950 MHz    |
| Output Frequency Band 2 | 950 - 1950 MHz    |
| Tone Frequency          | 22 kHz ± 4 kHz    |
|                         |                   |

## **RF SPECIFICATIONS**

| Control Signal 1               | 13V / No Tone   |
|--------------------------------|-----------------|
| Control Signal 2               | 18V / No Tone   |
| Conversion Gain Max            | 65 dB           |
| Conversion Gain Min            | 55 dB           |
| Conversion Gain Typ            | 60 dB           |
| Gain Flatness (over Full Band) | ≤ 5 dB p-p max. |
| Input VSWR                     | 2.5 : 1 max.    |
| Output P1db                    | + 5 dBm min.    |





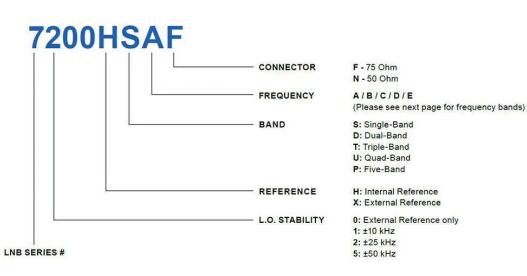
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| ELECTRICAL SPECIFICATIONS   |                         |
|-----------------------------|-------------------------|
| Current Consumption         | 450 mA max              |
| Power Requirements          | +12 to +24V DC          |
| INTERFACE SPECIFICATIONS    |                         |
| IF Connector                | N-Connector             |
| RF Input Connector          | WR-42 Waveguide Grooved |
| ENVIRONMENTAL SPECIFICATION | S                       |
| Humidity                    | 0 - 100%                |
| IP Rating                   | IP 66                   |
| Temperature Operational     | -40°C to +70°C          |
| Temperature Storage         | -45 to +80°C            |
| PHYSICAL SPECIFICATIONS     |                         |
| Product Height              | 1.70 in                 |
| Product Length              | 4.67 in                 |
| Product Weight              | 0.4 kg                  |
| Product Width               | 1.72 in                 |

#### LOGISTICS SPECIFICATIONS

| HS Code | Country of Origin | Ex Works             | ECCN Number | Unit Package                        |  |
|---------|-------------------|----------------------|-------------|-------------------------------------|--|
|         | Made in Canada    | Richmond, BC, Canada | EAR99       | 135 mm x 68 mm x 48<br>mm   0.48 kg |  |

## **HOW TO ORDER**

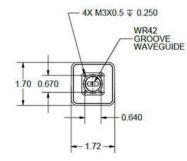


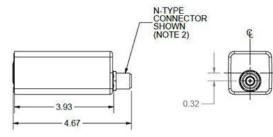
## **MECHANICAL DIAGRAMS**



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|      |                | Dual Band     |               |        |                     | Triple Band   |               |
|------|----------------|---------------|---------------|--------|---------------------|---------------|---------------|
| Band | RF freq. (GHz) |               | Voltage/Tone  | Band   | Band RF Freq. (GHz) |               |               |
|      | Band 1         | 17.75 - 18.75 | 13 V          |        | Band 1              | 17.70 - 18.70 | 13 V          |
| A    |                |               | Production (  | A      | Band 2              | 18.45 - 19.45 | 13 V / 22 kHz |
|      | Band 2         | 18.35 - 19.35 | 18 V          |        | Band 3              | 19.20 - 20.20 | 18 V          |
| в    | Band 1         | 18.20 - 19.20 | 13 V          | 1000   | Band 1              | 17.70 - 18.70 | 13 V          |
|      | Band 2         | 19.20 - 20.20 | B             | В      | Band 2              | 18.70 - 19.70 | 13 V / 22 kHz |
|      | Band 2         | 19.20 - 20.20 | 18 V          |        | Band 3              | 19.70 - 20.20 | 18 V          |
|      | Band 1         | 18.40 - 19.40 | 13 V          | c      | Band 1              | 17.90 - 18.30 | 13 V          |
| С    | Band 2         | 19.20 - 20.20 | 18 V          |        | Band 2              | 18.30 - 19.30 | 13 V / 22 kHz |
|      | Band 2         | 19.20 - 20.20 | 18 V          |        | Band 3              | 19.30 - 20.30 | 18 V          |
|      | Band 1         | 19.20 - 20.20 | 13 V          | 279.45 | Band 1              | 18.20 - 19.20 | 13 V          |
| D    |                |               | 72707         | D      | Band 2              | 19.20 - 20.20 | 13 V / 22 kHz |
|      | Band 2         | 20.20 - 21.20 | 18 V          |        | Band 3              | 20.20 - 21.20 | 18 V          |
|      | Band 1         | 17.20 - 18.20 | 13 V          | E      | Band 1              | 17.50 - 18.50 | 13 V          |
| E    | - IO           | 17 50 10 50   | 18 V          |        | Band 2              | 18.20 - 19.20 | 13 V / 22 kHz |
|      | Band 2         | 17.50 - 18.50 | 18 V          | _      | Band 3              | 19.20 - 20.20 | 18 V          |
|      |                | Quad Band     |               |        |                     | Five Band     |               |
| Band | R              | F Freq. (GHz) | Voltage/Tone  | Band   | RF Freq. (GHz)      |               | Voltage/Tone  |
|      | Band 1         | 17.20 - 18.20 | 13 V          |        | Band 1              | 17.20 - 18.20 | 13 V          |
| A -  | Band 2         | 18.20 - 19.20 | 13 V / 22 kHz |        |                     |               | 6550K.)       |
|      | Band 3         | 19.20 - 20.20 | 18 V          |        | Band 2              | 18.00 - 19.00 | 13 V / 22 kHz |
|      | Band 4         | 20.20 - 21.20 | 18 V / 22 kHz |        | Band 3              | 18,70 - 19,70 | 18 V          |
|      | Band 1         | 17.50 - 18.50 | 13 V          |        | Banu 3              | 18.70 - 19.70 | 10 V          |
| в    | Band 2         | 18.40 - 19.40 | 13 V / 22 kHz |        | Band 4              | 19.40 - 20.40 | 18 V / 22 kHz |
|      | Band 3         | 19.30 - 20.30 | 18 V          |        | 22 12               |               | 2010          |
|      | Band 4         | 20.20 - 21.20 | 18 V / 22 kHz |        | Band 5              | 20.30 - 21.30 | 24 V          |



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