



CROSSFIRE

M2RU

MID POWER

4T4R Digital Radio
37dBm Output Power
Supports Sub-6GHz
Outdoor Rated

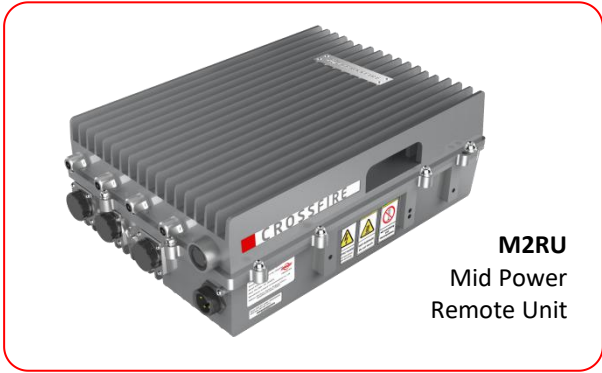
OVERVIEW

CrossFire M2RU is a digital transmission platform supporting CPRI/eCPRI protocol over fiber optic for cellular technology. The power amplifier leverages Digital Pre-Distortion technology, allowing for a significant reduction in power consumption, compared to analog technology. This platform is ideal for multi-operator deployments of cellular services for large coverage areas, and an alternative option for single operator RAN solutions.

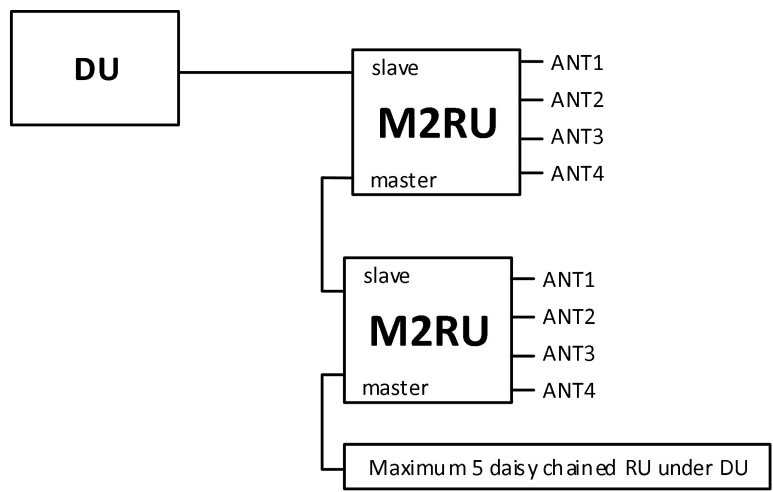
KEY FEATURES

- Single Band 4T4R
- Up to 37dBm Output Power
- Dual Bands 2T2R
- Supports Sub-6GHz
- Optical Cascading of RUs
- Up to 150MHz IBW
- Supports External Alarm & AISG
- CPRI & eCPRI Interface

SYSTEM ELEMENTS



BLOCK DIAGRAM



TECHNICAL SPECIFICATIONS

System

| | | | | |
|---|--|----|----|----|
| Maximum CPRI/ eCPRI Links Between RU and DU | 1 | | | |
| Maximum LTE Carriers from DU ¹ | 4 | | | |
| LTE Carrier Bandwidth ¹ | 5/ 10/ 15/ 20M | | | |
| Maximum RF Channels per RU | 4 | | | |
| Maximum Antenna Carriers of RU ¹ | 4 | | | |
| Maximum Component Carriers per Channel in RU ¹ | 2 | | | |
| Maximum RUs cascaded ² | 5 | | | |
| IBW per Channel | ≤150MHz (Contiguous or non-Contiguous) | | | |
| Number of Carriers | 1 | 2 | 4 | 8 |
| DL Output Power per Carrier (dBm) | 37 | 34 | 31 | 28 |
| DL Error Vector Magnitude | <3.5% @ 256 QAM | | | |
| Noise Figure | 4dB Typical | | | |
| VSWR | 1.5:1 | | | |

Note 1, the capacity depends on DU, can modify the firmware to support more carriers.

Note 2, the cascade is only applicable for CPRI version

SUPPORTED BANDS

| Band | 3GPP Band | Downlink | Uplink | Max Bandwidth |
|-------------|-----------|-----------|-----------|---------------|
| 3500MHz | 42 | 3400-3600 | 3400-3600 | 100 |
| 3500MHz | n78 | 3450-3650 | 3450-3650 | 100 |
| 3600MHz | 48 | 3550-3700 | 3550-3700 | 100 |
| 3700MHz | 43 | 3600-3800 | 3600-3800 | 100 |
| 2500MHz TDD | 41 | 2496-2690 | 2496-2690 | 100 |
| 2300MHz TDD | 40 | 2300-2400 | 2300-2400 | 100 |
| 1800MHz | 3 | 1805-1880 | 1710-1785 | 75 |
| 1900MHz | 25 | 1930-1995 | 1850-1915 | 65 |
| 2100MHz | 1 | 2110-2170 | 1920-1980 | 60 |
| 2100MHz AWS | 66E | 2110-2200 | 1710-1780 | 90 |
| 2600MHz | 7 | 2620-2690 | 2500-2570 | 70 |

INTERFACES

| | |
|-------------------|--------------------------------------|
| Antenna Interface | 4 x 4.3-10 Female |
| RET | AISG 2.0 |
| Dry Contact | 2 Inputs & 2 Outputs, NO and NC Mode |

ELECTRICAL

| | |
|--|--|
| Complies with | 3GPP TS 36.104 |
| Electromagnetic Compatibility/Interference | EN 301489-1 / -50, EN 50121-4, EN 55032, EN 61000-4 series |
| Safety | EN 60950-1, EN 60950-22, EN 62368-1, EN 50385 |
| Maximum Power Consumption | 150W |
| Power Supply | 100-240V AC, 50/60Hz 48VDC ± 20% |

| TECHNICAL SPECIFICATIONS | |
|---------------------------------------|--|
| ENVIRONMENTAL | |
| Mean Time Between Failure | >100,000 hours |
| Operating Temperature | -40°C ~ 55°C / -40°F ~ 131°F |
| Storage Temperature | -40°C ~ 70°C / -40°F ~ 158°F |
| Humidity | 5% ~ 100% (Non-Condensing) |
| Cooling | Passive |
| Installation | Wall or Pole |
| Complies with | EN 300019-1-1, EN 300019-1-2, EN 300019-1-4, IEC 60529 IP67 |
| Size: Width x Height x Depth (Weight) | 360mm X 115mm X 260mm (11kg)/ 14.17in x 4.52in x 10.23in (24.25lbs) |

| ORDERING INFORMATION | |
|----------------------|--|
| Assembly Code | Description |
| Remote Unit | |
| DRRU-R3181DNN | CrossFire M2RU, assembled with B48, 4T4R, CPRI, 10km Duplex SFP+, DC Powered |
| DRRU-R4181DNN | CrossFire M2RU, assembled with B48, 4T4R, Split7.2, 10km Duplex SFP+, DC Powered |
| DRRU-R3181DRR | CrossFire M2RU, assembled with B41, 4T4R, CPRI, 10km Duplex SFP+, DC Powered |
| DRRU-R4181DRR | CrossFire M2RU, assembled with B41, 4T4R, Split7.2, 10km Duplex SFP+, DC Powered |
| DRRU-R3181D33 | CrossFire M2RU, assembled with B3, 4T4R, CPRI, 10km Duplex SFP+, DC Powered |
| DRRU-R4181D33 | CrossFire M2RU, assembled with B3, 4T4R, Split7.2, 10km Duplex SFP+, DC Powered |
| DRRU-R3181D11 | CrossFire M2RU, assembled with B1, 4T4R, CPRI, 10km Duplex SFP+, DC Powered |
| DRRU-R4181D11 | CrossFire M2RU, assembled with B1, 4T4R, Split7.2, 10km Duplex SFP+, DC Powered |
| Other Items | |
| FTLX1370W4BTL | 9.8304 Gigabit 1.4km Single Mode SFP+ Transceiver, Simplex, Dual LC Connector |
| FTLX2072D333 | 10Gb/s 10km Single Mode Bidirectional Datacom SFP+ Transceiver, Duplex, Single LC Connector, Wavelength 1331nm |
| FTLX2072D327 | 10Gb/s 10km Single Mode Bidirectional Datacom SFP+ Transceiver, Duplex, Single LC Connector, Wavelength 1271nm |
| FTLX2672D333 | 10Gb/s 30km Single Mode Bidirectional SFP+ Transceiver, Duplex, Single LC Connector, Wavelength 1331nm |
| FTLX2672D327 | 10Gb/s 30km Single Mode Bidirectional SFP+ Transceiver, Duplex, Single LC Connector, Wavelength 1271nm |
| LF40-OD1-1C-LCLC | 4.0m SMOF 1-Core, LC/PC to LC/PC (IP67 Protective Cover on 1 end) |
| LF40-OD1-1C-LCASC | 4.0m SMOF 1-Core, LC/PC to SC/APC (IP67 Protective Cover on 1 end) |
| LF20-OD2-1C-LCLC | 2.0m SMOF 1-Core, LC/PC to LC/PC (IP67 Protective Cover on both end) |
| LF40-OD2-1C-LCLC | 4.0m SMOF 1-Core, LC/PC to LC/PC (IP67 Protective Cover on both end) |

Contact Us

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