CORNING

# E62-M3

## MID POWER

2T2R Digital Radio
Up to 40dBm Output Power
Support C-Band

# Revision History

| Revision Number | Revision Date | Summary of Changes | Author |
|---|---|---|---|
| 1.0.0 | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |



This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 72cm between the radiator & your body.

The socket-outlet shall be easily accessible.

## Overview

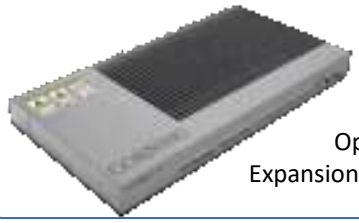
Everon E62-M3 is a digital transport platform dedicated for C-band operation supporting cellular technologies on fiber optic cable using the CPRI protocol. The power amplifier technology adopts Digital Pre-Distortion, allowing for a significant improvement in power consumption compared with analogue technology. This platform is ideal for multi-operator multi-band deployments of cellular services.

## Key Features

- 2T2R Digital Radio
- Support Full C-band SISO
- Single Fiber Link
- Up to 40dBm Output Power
- Supports External Alarm
- 5GNR Compliant

## System Elements

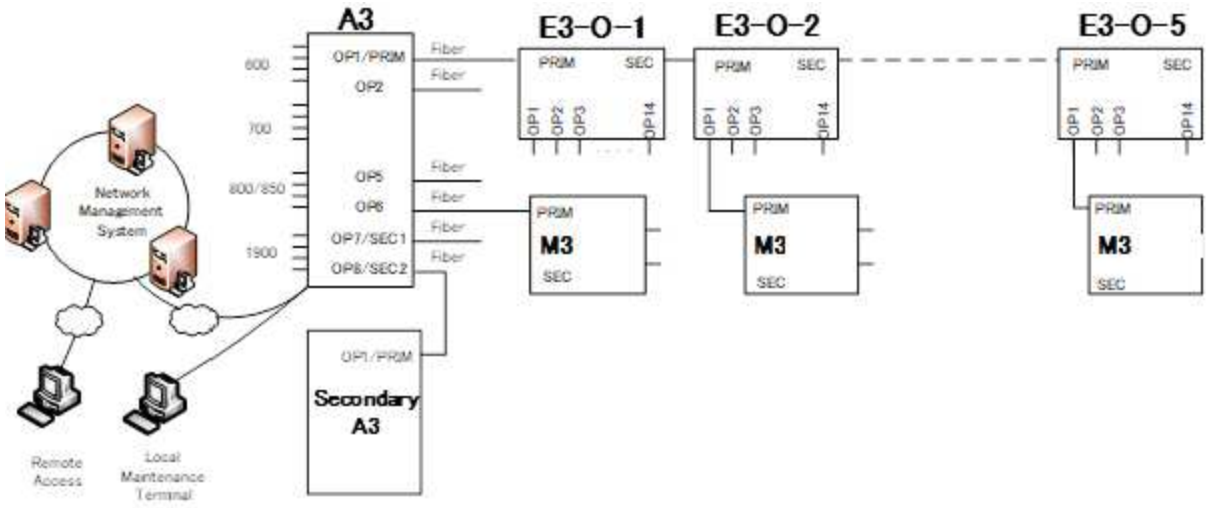
**A3**
Access Unit



**E3-O**
Optical
Expansion Unit

**M3**
Mid Power
Remote Unit

## Block Diagram




## Technical Specifications

| System | | | | |
|---|---|---|---|---|
| Maximum RF Bands per Access Unit | 4 | | | |
| Maximum RF Bands per Remote Unit | 2 | | | |
| Maximum Access Units per System | 3 (1 x Primary A3 / 2 x Secondary A3) | | | |
| Maximum E3s per Primary A3 | 8 | | | |
| Maximum M3RUs per E3 | 14 | | | |
| Maximum Cascaded Level | 6 | | | |
| Maximum IBW | 200MHz, (280M by firmware upgrade) | | | |
| Band Selective Mode | ≤100MHz, @1MHz step | | | |
| Channel Selective Mode | LTE: 5/10/15/20 MHz<br>NR: 5/10/15/20/30/40/50/60/70/80/90/100 MHz | | | |
| Fiber transmission Capacity | 48 Basic Units | | | |
| Filter Bandwidth | ⩽25M | 25<BW⩽50M | 50<BW⩽75M | 75<BW⩽100M |
| Basic Units Occupied | 1 | 2 | 3 | 4 |
| M3RU DSP Capacity | 12 DSP Units per Band | | | |
| Filter Bandwidth | ⩽25M | 25<BW⩽50M | 50<BW⩽75M | 75<BW⩽100M |
| DSP Units occupied | 1 | 2 | 4 | 4 |
| Maximum Carriers Supported per Band | 4<br>8 (Full C-band Mode) | | | |
| System Delay Adjustment | Up to 80.00μs | | | |
| System Delay (A3+E3+M3) | 12μS | | | |
| VSWR | <1.6 | | | |

| Supported Configurations | | |
|---|---|---|
| Configuration | CH1 | CH2 |

| | | |
|---|---|---|
| Full C-Band[1] | 3450-3800M | 3700-3980M |

1. CH1 & CH2 is combined inside M3, only one RF ANT port. Each CH has 37dBm output power.

| Forward Path (Downlink) | |
|---|---|
| Output Power per Band | 40 ± 2dBm for C-Band (37dBm for each sub-band) |
| Maximum Gain | 37 ± 3dB for C-Band |
| Maximum Input Power | +15dBm (with AGC operating) / 0dBm (without AGC operating) |
| EVM | <3.5% @ 256 QAM |
| Manual Attenuation Control | 35dB @ 1dB/step (A3: 20dB, M3: 15dB) |

## Technical Specifications

| Reverse Path (Uplink) | |
|---|---|
| Output Power per Band | -10 ± 2dBm for C-Band (-13dBm for each sub-band) |
| Maximum Gain | 37 ± 3dB for C-Band |
| Maximum Input Power | -35dBm |
| Manual Gain Control | 35dB @ 1dB/step (AU: 20dB, M3: 15dB) |
| Noise Figure | 6dB@max Gain |
| IIP3 | -22dBm |

| Interfaces | |
|---|---|
| M3 Antenna Interface | 4.3-10 Female |
| M3 RF coupling port | QMA Female |
| A3 RF Interface | QMA Female |
| Optical Connector Type | SFP28, Standard LC |
| Optical Transmission Rate | 24.33024 Gb/s |
| Optical Fibre Length | 10km |
| Physical Alarms | RJ45 (2x in, 2x out) |
| Maintenance Interface | Ethernet RJ45 |

| Electrical | |
|---|---|
| Complies with | 3GPP TS36.106 \| 3GPP TS25.106 |
| EMC | EN 301489-1 / -50, FCC 47 CFR 1.1307(b), FCC 47 CFR 1.310 |
| Safety | EN 62368-1 |
| Maximum Power Consumption (A3/E3/M3) | 60W / 40W / 200W |
| Power Supply | 100-240V AC, 50/60Hz \| 48VDC ± 20% |

| Environmental | |
|---|---|
| Mean Time Between Failure (MTBF) | >220,000 hours |
| Operating Temperature (A3/E3) | -10°C to +50°C / 14°F to +122°F |
| Operating Temperature (M3) | -40°C to +55°C / -40°F to +131°F |
| Humidity | 0% to 90% (Non-Condensing) |
| Cooling | Convection |
| Installation | A3/E3: Wall or 19” Rack \| M3: Wall, Pole, 19” Rack |

| Mechanical | |
|---|---|
| A3 (Width / Height / Depth / Weight)<br>With package | 440mm / 88mm / 329mm / 6.5kg, 17.32in / 3.46in / 12.95in / 14.33lb<br>555mm / 140mm / 535mm / 8.0kg, 21.85in / 7.09in / 21.06in / 17.64lb |
| E3 (Width / Height / Depth / Weight)<br>With package | 440mm / 44mm / 220mm / 5.0kg, 17.32in / 1.73in / 8.66in / 11.02lb<br>555mm / 140mm / 370mm / 7.0kg, 21.85in / 7.09in / 14.57in / 15.43lb |
| M3 (Width / Height / Depth / Weight)<br>With package | 330mm / 126mm / 250mm / 14.0kg, 13.00in / 4.96in / 9.84in / 30.86lb<br>555mm / 320mm / 430mm / 18.0kg, 21.85in / 12.60in / 16.93in / 39.68lb |