

An RF Repeater extends the wireless coverage of the nearest base station to designated shadow areas. These shadow areas occur due to various factors (e.g. mountains, large buildings, structures that obstruct base station signals, range of the base station).

Our revolutionary Epoch-S02™ repeaters are ideal for wireless providers who are looking into extending coverage within a building and extending coverage outdoors. Some of the key features of our versatile Epoch-S02™ repeaters are as follows:

- 100 mW to 1 W Composite Output Power
- High Gain (50 to 90 dB or 55 to 95 dB)
- AGC & MGC (40 dB Range @ 0.5 dB Step)
- Uplink Tracking Mode
- User Friendly GUI Software
- Fixed Band(s) or Band Selectable via GUI Software
- Remote Management via 3G Wireless Modem (Optional)
- NEMA 4 Compliant Enclosure (Outdoor Environment)
- Back-Up Battery (Optional)

## Repeater Specifications

### ELECTRICAL SPECIFICATIONS

| PARAMETERS                         |    | SPECIFICATIONS           | COMMENTS                                               |
|------------------------------------|----|--------------------------|--------------------------------------------------------|
| Frequency Range                    | FL | 1930 to 1990 MHz         |                                                        |
|                                    | RL | 1850 to 1910 MHz         |                                                        |
| Sub Band Filtering                 |    | 5 MHz, 15 MHz, or 20 MHz | A, D, B, E, F, C, AD, AE, AF, DB, DC, BE, BF, EC or FC |
| Operating Frequency                |    | Programmable             |                                                        |
| Frequency Error                    |    | $\leq +/\!- 0.1$ ppm     |                                                        |
| System Delay                       |    | $\leq 5$ usec            | Each Direction                                         |
| Receiver Dynamic Range             |    | -85 to -45 dBm           |                                                        |
| Maximum Adjacent Band Signal Level |    | -45 dBm                  | @ Isotropic Antenna                                    |
| Repeater Gain                      |    | 50 to 90 dB              |                                                        |
| Maximum FL and RL Output Power     |    | +24 dBm                  | Composite                                              |
| FL AGC Range                       |    | 40 dB                    |                                                        |
| RL AGC Range                       |    | 40 dB                    |                                                        |
| AGC Step Size                      |    | 0.5 dB                   |                                                        |
| Gain Linearity                     |    | $\leq +/\!- 1.0$ dB      |                                                        |
| Gain Flatness                      |    | $\leq 2.5$ dB            |                                                        |
| Total PA Power Variance            |    | $\leq +/\!- 0.5$ dB      |                                                        |
| In Band Noise                      |    | $\leq -45$ dBc           | @ Fc $+/\!- 885$ KHz                                   |
|                                    |    | $\leq -50$ dBc           | @ Fc $+/\!- 1.98$ MHz                                  |
| Spurious Emission                  |    | $< -13$ dBm              | @ Fc $+/\!- 2.25$ MHz                                  |
| Rho Factor                         |    | $\geq 0.912$             |                                                        |
| Noise Figure                       |    | Typical 4 dB             | @ Maximum Gain                                         |
| VSWR                               |    | $\leq 1.5:1$             |                                                        |

## MECHANICAL SPECIFICATIONS

| PARAMETERS         |              | SPECIFICATIONS              | COMMENTS  |
|--------------------|--------------|-----------------------------|-----------|
| Cabinet Size       |              | 15.75 x 17.72 x 7.85 inches | W x H x D |
| Cabinet Weight     |              | ≤ 50 lbs                    |           |
| Cabinet Mount Type |              | Utility Pole Mount          |           |
| Connector Type     | Antenna      | N-Type (F)                  |           |
|                    | Coupling     | SMA (F)                     | 30 dB     |
|                    | Frame Ground | Hex Nut (M6)                |           |
|                    | Control      | DB9 (M)                     |           |
| Cooling            |              | Convection                  |           |
| Weatherproofing    |              | NEMA 4, IP65                |           |

## POWER SPECIFICATIONS

| PARAMETERS               |                    | SPECIFICATIONS         | COMMENTS |
|--------------------------|--------------------|------------------------|----------|
| Main AC Power            |                    | 100 to 240 VAC         |          |
| AC Frequency             |                    | 45 to 65 Hz            |          |
| Power Consumption        |                    | ≤ 300 Watts            |          |
| AC Supply Protection     |                    | Fuse                   |          |
| Auxiliary Power (Option) | Output Voltage     | 12.0 VDC               |          |
|                          | Endurance          | ≥ 2 hour               |          |
|                          | Main to Auxiliary  | Automatic              |          |
|                          | Auxiliary to Main  | Automatic              |          |
|                          | Battery Protection | Internal Fuse          |          |
| Grounding                |                    | External Threaded Stud |          |

## ENVIRONMENTAL SPECIFICATIONS

| PARAMETERS            | SPECIFICATIONS    | COMMENTS |
|-----------------------|-------------------|----------|
| Operating Temperature | -22 °F to +122 °F |          |
| Storage Temperature   | -22 °F to +176 °F |          |
| Humidity              | 10 to 85%, RH     |          |