

## MT-32A Programmable Digital Attenuator

### Key Features/ Benefits

- Frequency range: 200MHz to 3000MHz
- Number of individual channels: 2
- Dynamic Range: 95 dB
- Step: 0.25 dB
- Insertion loss: 6dB at 2.4 GHz, 6.5dB at 3 GHz
- 0.1 dB compression: 34 dBm
- IP3: 58 dBm
- PoE Powered and Ethernet or USB Interface
- Programmable via Browser or APIs
- Completely shielded and very good accuracy
- Supports Windows, Linux and Mac OS

### Applications

- Wi-Fi up to 802.11be and cellular technologies (GSM, UMPS, LTE-FDD, LTE-TDD, 5G-FR1) testing
- Throughput vs Range measurements
- Wi-Fi or Cellular Roaming measurements
- Mesh, Band-steering
- Receiver Sensitivity Measurements
- System design or device verification testbeds
- Engineering Development and Automated Manufacturing Test

### Overview

The MT-32A programmable digital attenuator is a completely shielded, high performance, digitally controlled, 2-channel RF attenuator system. It is intended for any automated RF testing where high accuracy signal power control is needed. The MT-32A offers very good attenuation accuracy, high dynamic range and speed. The high performance of the attenuator is obtained through a high precision attenuator design and calibration.

| Parameter |  | Min | Typ | Max |
|-----------|--|-----|-----|-----|
|-----------|--|-----|-----|-----|

|                                      |                                           |      |                                       |      |
|--------------------------------------|-------------------------------------------|------|---------------------------------------|------|
| Frequency Range (MHz)                |                                           | 200  |                                       | 3000 |
| Impedance ( $\Omega$ )               |                                           |      | 50                                    |      |
| Channels                             |                                           |      | 2                                     |      |
| Attenuation Range (dB)               |                                           | 95   |                                       |      |
| Shielding (dB)                       |                                           |      | 90                                    |      |
| Isolation between Channels (dB)      |                                           |      | 85                                    |      |
| Step Size (dB)                       |                                           | 0.25 |                                       |      |
| Insertion Loss (dB)                  | < 2.5 GHz                                 |      | 6                                     | 6.5  |
|                                      | < 3 GHz                                   |      | 6.5                                   | 7    |
| Attenuation Accuracy (dB)            |                                           |      | 0.25                                  | 1.5  |
| Switching Speed ( $\mu$ s)           |                                           |      | 2                                     |      |
| Maximum Input Level (dBm)            |                                           |      | +28 (operating)<br>+33 (absolute max) |      |
| Input IP3 (dBm)                      |                                           |      | 58                                    |      |
| Operating modes                      | Uni/Bi-Directional<br>GUI control or APIs |      |                                       |      |
| Power                                | Power over Ethernet (PoE)                 |      |                                       |      |
| Operating Temperature                | -30 °C to +70 °C                          |      |                                       |      |
| RF connectors                        | SMA                                       |      |                                       |      |
| Control Interface                    | Ethernet or USB                           |      |                                       |      |
| Operating System                     | Windows, Linux and Mac                    |      |                                       |      |
| Custom APIs as per user requirements | Yes                                       |      |                                       |      |



