

# Scalable Reliable Affordable



## CYCLONE TIMING MODULES

The **Cyclone Timing Module 1-M** is an excellent alternative to the existing timing options on the market today. Built from the ground up specifically with the Motorola Canopy wireless platform in mind, there isn't another Timing option on the market today that boasts the feature set of the CTM-1M in its price range.

### Features include:

- Dual Hot Swappable Power Supplies
- Integrated Oscillator
- Port Pass Through for VLANs and Layer 3 Options
- Fully SNMP Capable
- Web Interface
- E-mail Notification
- Port Monitoring for Power Consumption
- In-Line Surge Suppression
- By adding a Slave unit you can provide timing for up to 16 devices.

As well as a host of other features too numerous to list here.

**NOTE: THE CTM-1m DOES NOT PROVIDE ANY ROUTING OR SWITCHING FUNCTIONALITY.**

### CTM Specifications

#### CTM-1m GPS Receiver

<b>Position Deviation</b> (Typical per local conditions)	<3 ft.
<b>Timing Deviation</b> (Typical per local conditions)	< 200 nSec.
<b>Antenna Drive Voltage</b>	5 VDC
<b>Time to First Fix</b> (Typical Cold Start)	< 1 Minute
<b>Time to First Fix</b> (Typical Warm Start)	< 10 Seconds
<b>WAAS/EGNOS Capability</b> (Increases Accuracy)	Yes

#### CTM Units

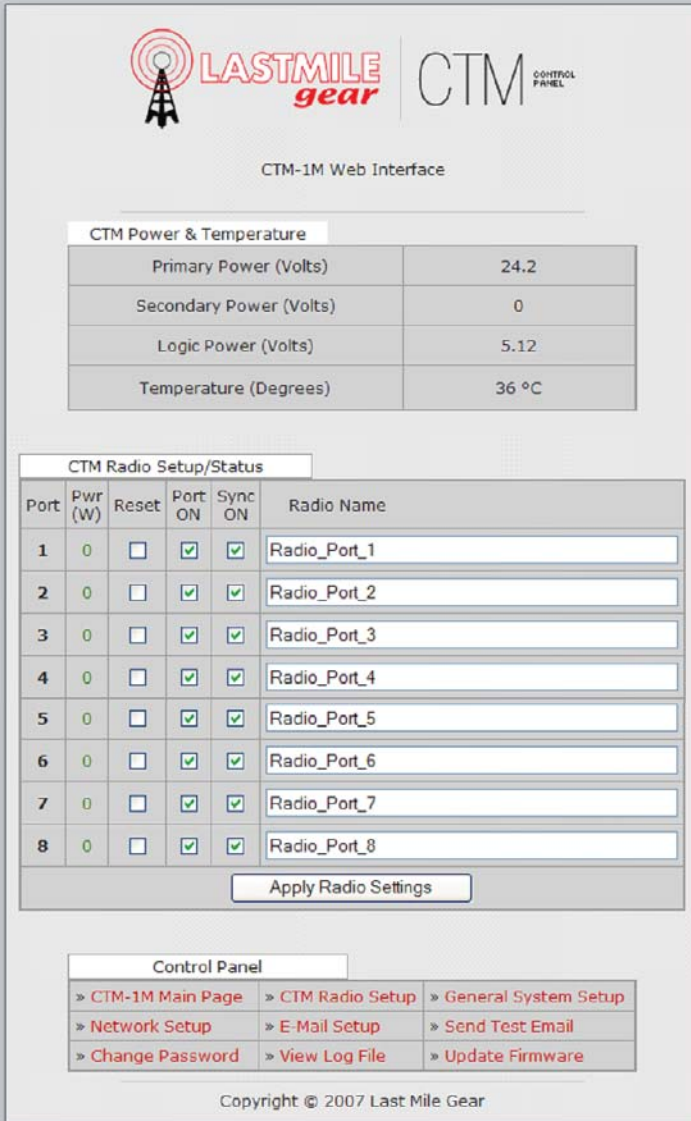
<b>Primary Power Input Voltage Range</b> (Operational)	22-31 VDC
<b>Maximum Voltage Applied to Either Power Input</b>	(±)180 VDC / 120 VAC
<b>Power Inputs Polarity Protected</b>	Yes
<b>Power Inputs Surge Protected</b>	Yes
<b>Grounding System</b>	Negative Only
<b>Quiescent Current @ 24V Input Voltage</b>	220 mAmp
<b>Quiescent CTM Power</b>	5.2 Watts
<b>Max. Operating Temperature</b>	140° F
<b>Min. Operating Temperature</b>	-40° F
<b>Radio Port Surge Suppression Nominal</b>	5,000 Amp Gas Tube POE, 1500 TVS Ethernet
<b>POE Surge Suppression Voltage Nominal</b> (Gas Tube)	90 Volts
<b>Surge Peak Power Dissipation</b> (.1uSec)	20 kWatt
<b>Surge Peak Power Dissipation</b> (1mSec)	2 kWatt
<b>Sync Pulse Drift</b> (Backup)	1-10 PPM (Depending on rate of temperature change)

#### CTM Units

<b>Dimensions</b>	(DT: 8"x6.7"x2.2") (1U: 19"x11"x1.75")
<b>Weight</b>	(DT: 2.9 lbs.) (1U: 6.8 lbs.)

Cyclone components are 100% compatible with the entire line of Motorola Canopy Subscriber Modules, Backhauls, and Access Points.

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**CTM-1M Web Interface**

**CTM Power & Temperature**

Primary Power (Volts)	24.2
Secondary Power (Volts)	0
Logic Power (Volts)	5.12
Temperature (Degrees)	36 °C

**CTM Radio Setup/Status**

Port	Pwr (W)	Reset	Port ON	Sync ON	Radio Name
1	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_1
2	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_2
3	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_3
4	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_4
5	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_5
6	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_6
7	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_7
8	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Radio_Port_8

Apply Radio Settings

**Control Panel**

- > CTM-1M Main Page
- > CTM Radio Setup
- > General System Setup
- > Network Setup
- > E-Mail Setup
- > Send Test Email
- > Change Password
- > View Log File
- > Update Firmware

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**Basic Information**

Site	No Site Name Entered Yet
Date	Sep 7, 2007
Time	13:40:05
Alert	OK
MAC Address	00:50:C2:56:40:58
Flash Memory	Flash Memory A - Checksum OK
Password Set	Password system is OFF
Interface Version	210.24
Control CPU	12
Flash Loader	108.08
Hardware Version	105

**Network & Email Setup**

IP Address	169.254.1.1
Subnet Mask	255.255.0.0
Gateway	169.254.0.0
DNS 1	0.0.0.0
Connection	100 Mbps Full-Duplex
SNMP Target	0.0.0.0:162
SNMP Community Str	public
SMTP Server	No SMTP Name Entered
SMTP Port	25
From Email	None
Send To 1	None
Send To 2	None

**GPS Receiver Status & Environment**

Timing	FIX
Antenna Power	OK
SATS	9
Sig S/N (db)	50
Latitude	46° 08.4279' N
Longitude	122° 56.0535' W
Altitude	13.8 Meters
Time Zone	-8
CTM Slaves	CTM Slave Units Not Enabled

**CTM Kits include:**

- 1 - Cyclone Timing Module
- 2 - 24v Power Supplies
- 1 - GPS Antenna (Not included in Slave Units)
- 1 - CTM User Manual

Replacement parts and custom GPS cables are available from Last Mile Gear. For a detailed quote give us a call at 1-866-230-9174.

**CTM-1M Rear Panel View**



**Cyclone Support** Last Mile Gear provides some of the best Technical Support in the business for Cyclone radios as well as the entire line of Motorola Canopy equipment. We are here to assist you Monday thru Friday 8:00 to 5:00 Pacific Time. Last Mile Gear can also provide full network integration and design services.

**Warranty** All Cyclone Radios are covered by a one year conditional warranty. Cyclone Access Points and Backhauls are covered for manufacturing defects only. Equipment that is damaged due to improper handling, installation, or acts of God such as lightning, flood, or ice are not the responsibility of Last Mile Gear nor its Distributors. **DO NOT ATTEMPT TO REPAIR CYCLONE EQUIPMENT YOURSELF.** Radios that are returned with the case seal broken will NOT be covered under warranty under any circumstance.