

# MDC-1200® | GE-STAR® | FleetSync™ | DTMF Multi-Format ANI Decoders



**C Plus I**



**C Plus II**



**C Plus III**

## Console/Computer Interface Model

MDC-1200, FleetSync, DTMF and GE-Star

Diagnostic LEDs

Authorize feature for repeater access control

Emergency Acknowledgment

Programmable Serial Output

Printer output

Enable/Disable, Call Alert, Microphone Monitor & Select Call features available

## Single Window Display Model

MDC-1200, FleetSync, DTMF and GE-Star

8 large 0.7" high bright LED matrices

Stores last 20 ID's in memory

Emergency Acknowledgment

Unique Man-down and Emergency display

Optional 4000 ID alias table

Enable/Disable, Call Alert, Microphone Monitor & Select Call features available

## Multi-Window Display Model

MDC-1200, FleetSync, DTMF and GE-Star

36 character LED display

Shows 5 or more ID's on the front display

Emergency Acknowledgment

Taxi Bid mode

Optional 4000 ID alias table

Enable/Disable, Call Alert, Microphone Monitor & Select Call features available



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Always Know Who You're Talking To™

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# Multi-Format ANI Decoders/Encoders

## Details for all Models:



- DSP control for fast reliable decodes
- Trunked or Conventional system compatible
- Real Time clock for time and date stamp
- Data Mute circuit with N.O. and N.C. contacts
- Programmable RS-232 Serial Output
- "Enunciate" function allows for unique tone sounds when specific ID's are received.
- Taxi bid mode that holds the first received ID in the main display until the display is reset
- Decodes complete MDC-1200 ID set (O-DEEE)
- Decodes complete FleetSync ID (fleet ID's from 100-349 & vehicle ID's from 1000-4999)
- Decodes all known variations of GE-STAR
- 8 Character DTMF decode with status bit at end or beginning
- Customizable Message naming
- Two open collector outputs for external alarms, auto dialers, counters or ...
- Built in loop back tests, data modulation tests and line output tests
- Programming software built into the unit
- 3-year warranty

## Optional Features

### Firmware

**Alias** – 4000 ID table allows a 27 alpha-numeric character output and will display up to 8 characters on the *C Plus II* and 27 characters on the *C Plus III*. For example an ID of 1234 could display: JOHNBELL NORTHDIVISIONGATE32

**Encode with Ambush** – Compatible with MDC-1200, GE-STAR and FleetSync. Will allow Long and short call alerts, Radio Check, Microphone Monitor, Voice Select Call, Radio Enable and disable, Call cancel and some Status messaging

**Authorize** – Permits the user to program a list of authorized ID's into a table. The *C Plus* will then only respond to those ID's. The auxillary outputs can be connected to a repeater or ...

**2 or 3 format decode** – A standard *C Plus* is user selectable for MDC-1200, GE-STAR, FleetSync or DTMF. With the 2 or 3 format option the *C Plus* can be programmed to decode either 2 or 3 of the listed formats

**Tone Remote** – 125 mS tone burst of 2175 Hz followed by a function tone

### Hardware

Programming cable – 6 foot RJ-11 to 9 pin serial cable

19" single or dual rack mount kit

Handheld terminal for initiating outbound messages

## Specifications

- Data Input: Single ended 30 mv to 12 Vpp; balanced 600 ohms: -30 to + 10dBm, Hi Z: -36 to +4dBm
- Data Output: Single ended 600 ohms: to 14Vpp; Balanced 600 ohms: to +10dBm; Hi Z: to +16dBm
- Dimensions:
  - *C Plus I* 8" X 6.25" X 2.5"
  - *C Plus II* 8" X 6.25" X 2.5"
  - *C Plus III* 8" X 6.25" X 4.75"
- Power Requirements – 5 VDC + 5% at 2 amps
  - Unit comes with a 100 to 240 VAC power Supply
  - Optional 12vdc conversion is available
- Sounder – Audible 3400 Hz 80db(A) @ 2'. Programmable
- Removable Screw Terminal strips

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MDC-1200 is a registered trademark of Motorola, Inc.

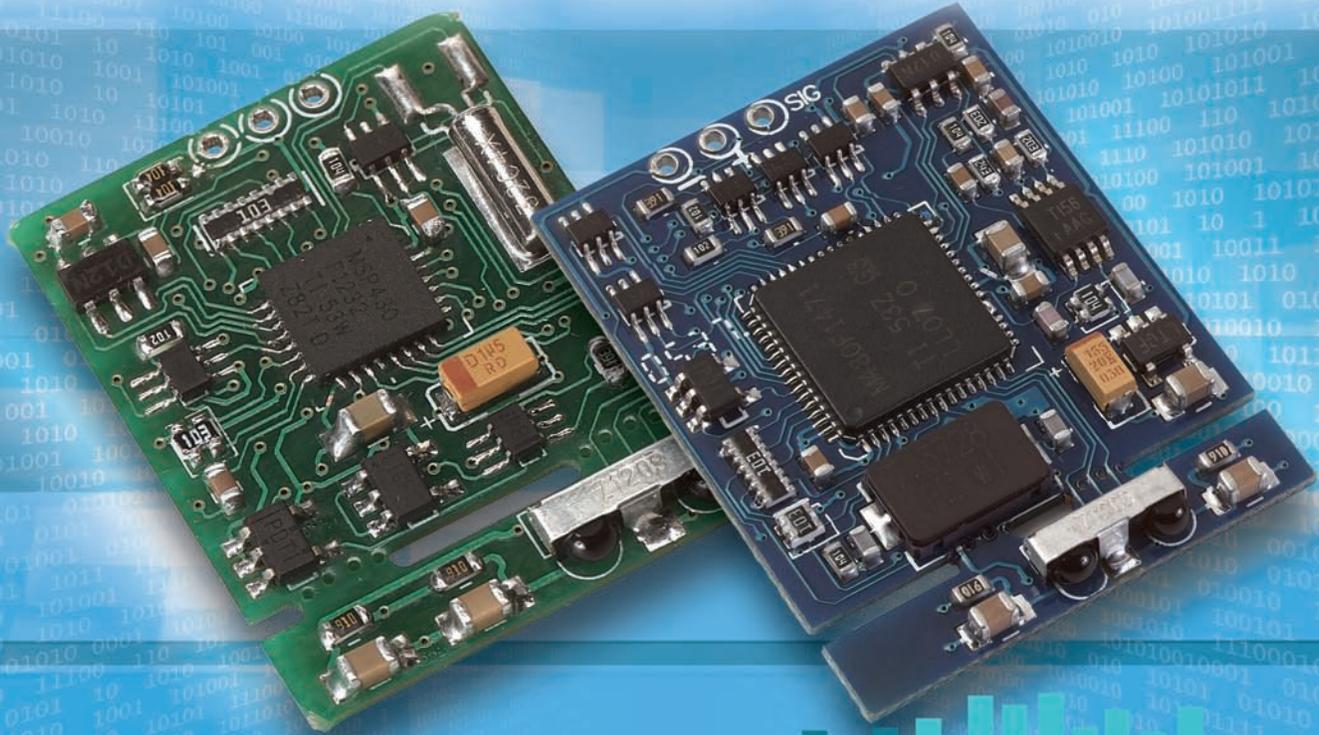
GE-STAR is a registered trademark of GE Ericsson

FleetSync is a trademark of Kenwood Communications Corporation



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# Always Know Who You're Talking To<sup>SM</sup> with the **CIM-1000 and CIM-2000**



## **MDC-1200® or GE-STAR® Encoders and Decoders**

### **Features that Give You Added Power**

The new CIM Series of boards will provide MDC-1200 or GE-STAR signaling capability for mobile and portable radios. The 1000 series encodes: PTT ANI, Emergency and Man-Down messages while the 2000 series adds the capability to decode call-alerts, radio checks, mike monitor and radio enable/disable. The CIM Series is Trunking compatible and is easily programmable with either the low-cost serial cable or handheld IR programmer.

### **Kenwood Plug-In Modules**

CIM-1000 boards are available that will plug into the following new radios:

- TK-2180/3180
- TK-2170/3170
- TK-7160/8160
- TK-5210
- TK-5710



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## CIM-1000

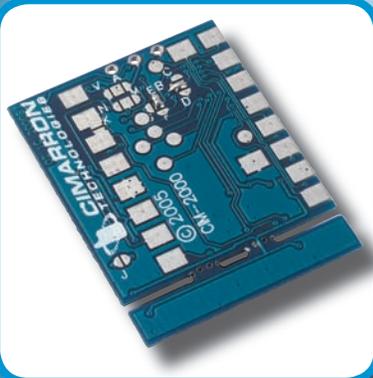


- User-programmable for MDC-1200 or GE-STAR
- Contains the complete MDC-1200 ID-set
- Emergency and Man-Down messages
- Dual-ID capable
- Very low power consumption
- Capable of zero attack delay for the fastest possible encode
- Programming with a handheld IR programmer or low cost serial cable
- Size: 17mm x 18mm x 2.0mm (without IR Prog)



## CIM-2000

*Now do in two-way radios what you haven't done before!*



- MDC-1200 or GE-STAR encode and decode
- Responds to the following over-the-air commands:
  - > Microphone monitor
  - > Radio interrogate
  - > Select, group or all calls
  - > Enable or disable command
- Very low power consumption
- Capable of zero-second attack delay and continuous data
- Programming with the handheld IR programmer or low-cost serial cable
- Size: 25mm x 23mm x 1.8mm (without IR Prog)



**All models come with a three-year warranty. Factory installation is available.**

Data Format	GE Star®	MDC-1200®
Modulation Type	PSK (Phase Shift Key)	FSK
Rate	400 bps on 1600hz carrier	1200/1800 Hz
ID Range	0001 to 16,383	0001-DEEE
ID Locations	ANI at Beginning, End or Both	
Messages	PTT ANI, Emergency, Man-Down, TOT. Programmable to any allowable GE Star® message.	PTT ANI, Emergency. Programmable to any allowable MDC message bit pattern.
Sidetone	3.3VPP Square wave audible tones. Time Out Timer Notification Tone      515 Hz Emergency and Man Down Warnings      400 Hz Go-Ahead Tone                                      1.4 Hz Courtesy Tone                                        650 Hz	
Burst Length	280mS plus preamble time.	Fixed length 180mS
Preamble Length	16/24/32/40/48/56 bits. (Each bit adds 2.5mS)	Fixed length
Attack Delay	0 mS to 1000 mS programmable in 10 mS steps.	
ANI Repeat Timer	(Time since last PTT press. If less, don't send ANI) Programmable 0 S (Send every PTT); 0 to 255 S.	
Supply Voltage	3.3 to 3.6 VDC regulated or 4.0 to 16.5 VDC unregulated	
Supply Current	5 mA constant.	
Temperature	Operating: -30°C to +60°C.	
Humidity	0% to 95% RH (non-condensing).	
Dimensions	CIM-1000: 17mm x 22mm x 2.7mm CIM-1000: 17mm x 18mm x 1.8mm (without IR Programmer Tab) CIM-2000: 30.0mm x 23.0mm x 2.7mm CIM-2000: 25.0mm x 23.0mm x 2.0mm (without IR Programmer Tab)	

# ANI Product Price List

MSRP

July 2005



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## MSRP Prices - July 2005

### Encoders - MDC-1200 and GE-STAR

With PTT ANI, Emergency and Man-Down Messages.

- CIM-1000, QE-2** (for most radios)
- VME-100** (plug-in for Vertex radios)
- CIM-1000K - 20/26** (plug-in for Kenwood radios)
- QE-2i** (plug-in for Icom radios)

Quantity	1-14	15-29	30-59	60-199	200-up
Sugg. List	\$99.00	\$94.00	\$89.00	\$80.00	Call

### Encoder/Decoder - MDC-1200 and GE-STAR

Features Select Call, Radio Kill, Remote Mic, Radio Check, PTT ANI, Emergency, Man-Down msgs.

- CIM-2000** (for most radios)
- CIM-2000K-26** (plug-in for Kenwood radios)

Quantity	1-14	15-29	30-59	60-199	200-up
Sugg. List	\$142.00	\$134.00	\$125.00	\$117.00	Call

### Encoder/Decoder/Display - MDC-1200 and GE-STAR

**VMDE-200** (plug-in for Vertex radios)

Quantity	1-24	25-up
Sugg. List	\$165.00	\$140.00

### Accessories for both Encoders and Encoder/Decoders

	<b>List</b>
<b>CIM-CABLE</b> - Serial programming cable for all CIM series Encoders & Encoder/Decoders	\$54.00
<b>CIM-IRP</b> - Stand alone infrared programmer for the CIM series Encoders & Encoder/Decoders	\$420.00
<b>QPF-2</b> - PC based programmer for QE-1, QE-2, CEU & CDEU Encoders and Encoder/Decoders.	\$165.00
<b>CAE-3</b> - Man-Down Tilt switch kit for Cimarron Encoders and Encoder/Decoders (bulk available)	\$24.00

### ANI Display Decoders

<b>C Plus I</b> - Computer/Console interface unit. Programmable for any <u>one</u> of the following formats: MDC-1200, GE-STAR, Fleetsync, or DTMF. Includes wall type power supply, Manual on CD. Please note that this unit has no display.	\$995.00
<b>C Plus II</b> - 8 Character Single Window Display decoder. Programmable for any <u>one</u> of the following formats: MDC-1200, GE-STAR, Fleetsync, or DTMF. Displays 1 ID at a time, stores the last 20 received. Includes power supply, Manual on CD.	\$1165.00
<b>C Plus III</b> - 36 Character Multi Window Display decoder. Programmable for any <u>one</u> of the following formats: MDC-1200, GE-STAR, Fleetsync, or DTMF. Displays up to 5 ID's at a time, stores the last 20 received. Includes power supply, Manual on CD.	\$1795.00

### Multi-Channel Computer Interface

<b>C Plus MCC- 5</b> 19" x 7" Rack w/Power supply. Has space to accomodate up to 5 channel cards	\$1425.00
<b>C Plus MCC- 10</b> 19" x 7" Rack w/Power supply. Has space to accomodate up to 10 channel cards	\$1545.00
<b>C Plus MCC- C</b> Channel Card. Specifications match the <i>C Plus I</i> Decoder unit.	\$895.00

### Decoder Accessories

<b>ACC-A01</b> - Alpha Numeric Aliasing Feature for the C Plus includes all programming Software.	\$250.00
<b>ACC-E02</b> - Encode Feature for the C Plus in MDC-1200, GE-STAR, or FleetSync formats. Includes Call Alert, Radio Check, Mic Monitor, Select Call, Radio Kill, and Radio Enable.	\$450.00
<b>ACC-D03</b> - Simultaneous Dual Format Decode	\$450.00
<b>ACC-D04</b> - Simultaneous Three Format Decode	\$750.00
<b>ACC-D05</b> - Tone Remote Option. As required for Emergency Ack + Encode features	\$75.00
<b>01 90 0600</b> - Programming/Computer interface cable for C Plus, 6 ft. length.	\$42.00
<b>01 90 0601</b> - Printer Interface cable for C Plus, 6 ft. length.	\$42.00
<b>05 50 0600</b> - Installation & Service Manual for all C Plus models. Hard copy, spiral bound, 85 pgs	\$35.00
<b>01 90 0033</b> - Handheld Terminal for entering 2-way messages.	\$525.00
<b>ACC-RACK1</b> - 19" Rack mount kit for C Plus I and II, both single and dual side by side mount	\$375.00
<b>ACC-RACK2</b> - 19" Rack mount kit for C Plus III, both single and dual side by side mount.	\$385.00

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## PRODUCT WARRANTY

Cimarron Technologies Corporation warrants all of its ANI products to be free from defects in material and workmanship for a period of three years from date of shipment. If a malfunction occurs due to defective material or workmanship, equipment will be repaired or replaced at Cimarron's discretion if returned to the factory. All warranty work will be done at Cimarron's factory and in no case shall Cimarron bear the cost of on-site labor.

This warranty does not apply to any failure or damage caused by accident, neglect, unreasonable use, improper installation, tampering, or to alterations or modifications to the unit. Nor does the warranty extend to damage incurred by force majeure (natural causes) such as lightning, fire, floods, or other such catastrophes, nor to damage caused by environmental extremes, power surges and/or transients.

Cimarron Technologies Corporation makes no other warranty, either expressed or implied, with respect to this product. Cimarron Technologies Corporation specifically disclaims the implied warranties of merchantability and fitness for a particular purpose. Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.

The remedies provided herein are customer's sole and exclusive remedies. In no event shall Cimarron Technologies Corporation be liable for any lost profits, direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory.