

What are the differences between the CIM-1000 and the CIM-1200?

Well, let's start with what isn't different.

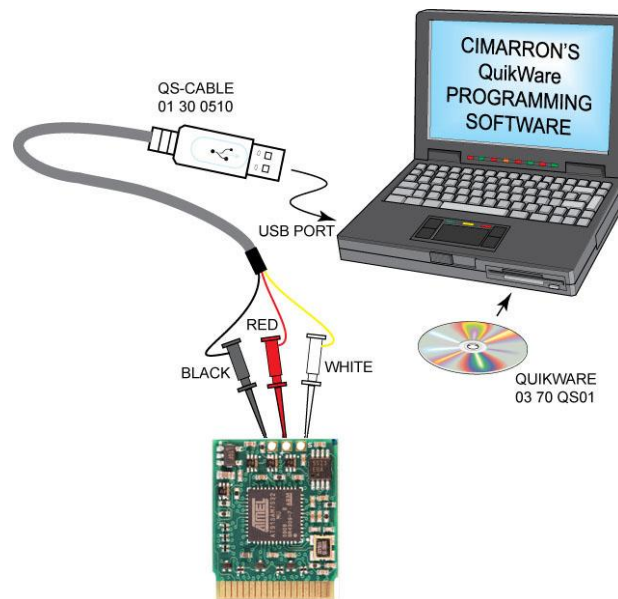
The wire colors are the same for the functions (white wire is still microphone mute, orange is still sidetone, etc).

The jumpers are labeled the same on both boards and they have the same functions. So if you needed jumper K on the CIM-1000, you will need jumper K on the CIM-1200.

Both boards will do either MDC-1200 or GE Star signaling.

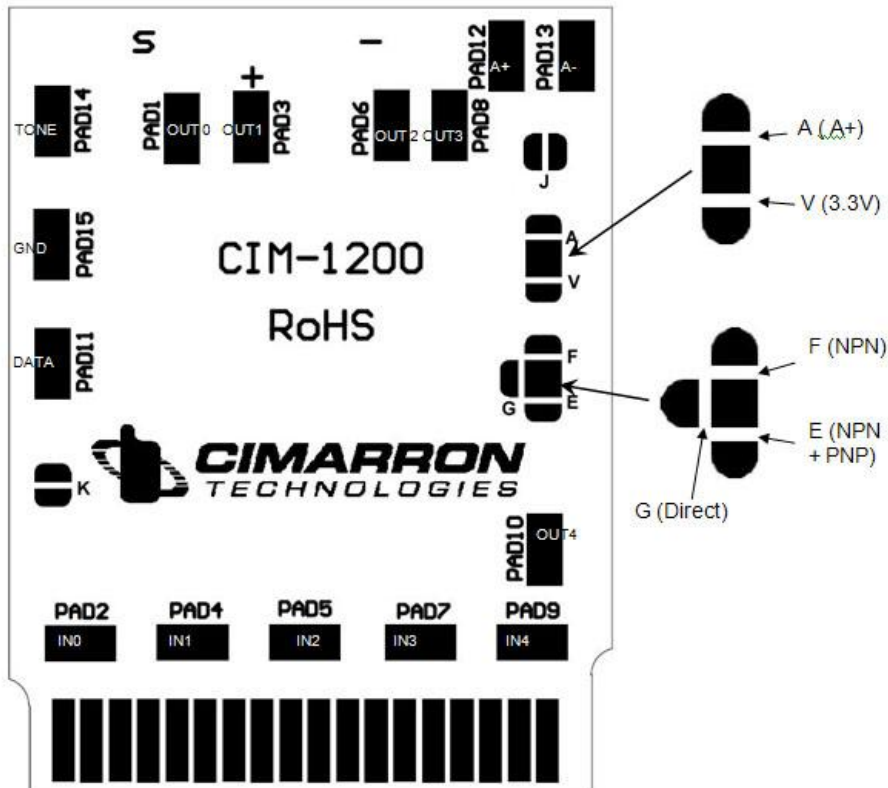
The CIM-1200 has all of the features of the CIM-1000 except continuous data capability and IR programming.

The CIM-Cable you used for the CIM-1000 will not work for programming the CIM-1200. The CIM-1200 is programmed with the Cimarron USB QS-Cable and QuikWare programming software.



Once the CIM-1200 is installed in a radio, to program the board, you can attach just the black and white grabbers and power the board by turning on the radio. Be sure that the red grabber does not touch anything that would short out the supply. After programming the board, remove the grabbers and cycle power on the radio so that the changes take effect.

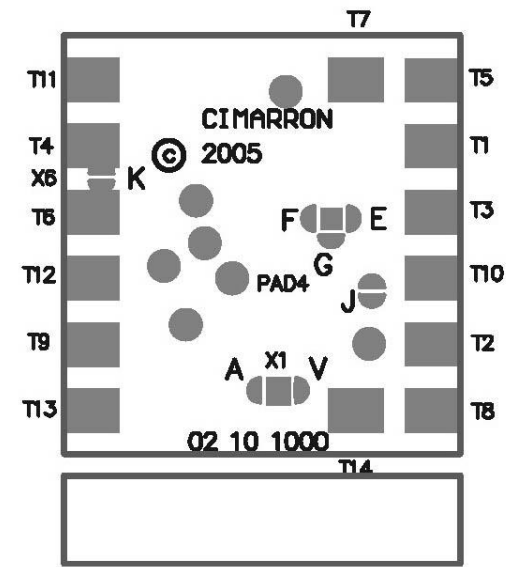
CIM-1200



Signal	Pad #	Color
A+	12	Red
A-	13,15	Black
Sidetone	14	Orange
Data Out	11	Wh/Blk
KEY (OUT0)	1	Brown
Critical Chan Revert (OUT1)	3	Wh/Brn
Mic Mute (OUT2)	6	White
(OUT3)	8	
Tone Control (OUT4)	10	Wh/Yel
PTT (IN0)	2	Yellow
Emergency	4	Green
Man-Down	5	Blue
Trunk Acquired	7	Wh/Vio
Sleep	9	Wh/Org

Figure 1

CIM-1000



Signal	Pad #	Color
A+	T13	Red
A-	T9,T14	Black
Mic Mute	T11	White
KEY	T4	Brown
PTT	T6	Yellow
Sidetone	T2	Orange
Emergency	T5	Green
Man-Down	T8	Blue
Aux Out	T3	Gray
Aux In	T7	Violet
Tone Control	T1	Wh/Yel
Data Out	T12	Wh/Blk
Sleep	T10	Gray

Figure 2

The I/O lines of the CIM-1200 are definable in the QuikWare programming software. You can have any function assigned to any input or output. You can also have multiple similar inputs or outputs. The Digital I/O control window of the software is shown below. Note that you can also define whether a signal is active low or high and you can program a debounce into each line separately if needed for your installation.

The signal level (active High or active Low) for the outputs refers to the signal out of the microprocessor, not the output at the solder pad. This is because there are jumpers to consider as well as transistor inversion.

Any unused inputs and outputs should be programmed for "Disconnected". The example below shows the emergency input programmed for IN1. If you are not using emergency input, you must remove it from the programmed functions otherwise you will experience false emergencies as the line floats to various levels.

DIGITAL I/O CONTROL				
INPUTS				
PAD	FUNCTION	SIGNAL	PULLUP ON	DEBOUNCE TIME
IN0	PTT	Low	No	0
IN1	Emergency	Low	No	0
IN2	Disconnected	Low	No	0
IN3	Disconnected	Low	No	0
IN4	Disconnected	Low	No	0
IN5	Disconnected	Low	No	0
IN6	Disconnected	Low	No	0
IN7	Disconnected	Low	No	0
IN8	Disconnected	Low	No	0
OUTPUTS				
PAD	FUNCTION	SIGNAL	PULLUP ON	
OUT0	Key	High	No	
OUT1	Critical Channel	High	No	
OUT2	Microphone Mute	High	No	
OUT3	Disconnected	Low	No	
OUT4	Tone Control	High	No	

The CIM-1000 was capable of having two different ID's. The CIM-1200 allows you to uniquely define up to sixteen different personalities that are selectable using four "code" lines. The Non-grayed areas of the below figure are the parameters you can define in the CIM-1200 to create the sixteen personalities if needed. Otherwise, use only Channel row one and under "Common Settings" select "No" for "Respond to Channel Codes".

Cimarron Technologies QuikWare -

File Edit Communications Channels Device Help

Global Settings Channel Settings Custom Settings Alias Settings

Drag a column header here to group by that column.

Chan	Inv Type	Fix Frq	Min Frq	Max Frq	Min Dwl	Max Dwl	Inv P/U	ANI Type	ANI Loc	PTT ID	PTT Msg	TOT Msg	EMR ID	EMR Msg	M/D ID	M/D Msg	Grp ID	Mute Mode	Crit ANI	Crit Rvrt	C/T	Ack	Base ID	Key
1	None	0	0	0	0	0	<input type="checkbox"/>	GE B	Start	7109	01	00	7109	01	7109	01	0	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	1111111111111111
2	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	2222222222222222
3	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	3333333333333333
4	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	4444444444444444
5	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	5555555555555555
6	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	6666666666666666
7	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	09	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	7777777777777777
8	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	09	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	8888888888888888
9	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
10	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
11	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
12	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
13	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
14	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
15	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000
16	None	0	0	0	0	0	<input type="checkbox"/>	GE B	None	2222	01	00	2222	01	2222	01	2561	No	<input type="checkbox"/>	Once	<input type="checkbox"/>	<input type="checkbox"/>	1	0000000000000000

COMMON SETTINGS

Attack Delay (msec) 300

Ack Delay (msec) 0

Startup Delay (msec) 100

ANI Repeat Timer (sec) 0

TX Timeout Timer (sec) Off

TX Data Level 255

PTT Sidetone Yes

Mute Data No

Mute on Incorrect Key No

MDC Call Alert Encode Short

MDC Wildcard Enable Yes

Unlock PIN 0000

Key Follows PTT Yes

Respond to Channel Codes No

Enable Keypad No

Display Received ANI No

Canned Message Type 1

Inv. Preamble 16 Bits

Disconnect Delay (msec) 500

Pre Mute Yes

One of the common complaints we received about the CIM-1000 was the inability to adjust the Tone level at the local speaker. This tone is presented locally 1) to alert the user that they have just initiated an emergency; 2) that their device is about to transmit a “Man Down” message; and 3) to have the user to not speak until the beginning send PTT ANI has been sent so that syllable clipping of the first spoken word is avoided. Most users would prefer to have the emergency and man down tones very loud but would want the PTT sidetone to be soft. The CIM-1200 permits adjustment to each tone individually. It also features the ability to assign different frequencies to different tones so that they can be recognized.

Critical Warning Tones	
Emergency Warning	800 Hz
Audio Level	100
Man Down Warning	400 Hz
Audio Level	100

PTT Sidetone	
Sidetone	600 Hz
Audio Level	100