MIDI CC Number	MIDI CC Usual Purpose	MIDI CC Usual Purpose Description	iPulsaret
0	Bank Select (MSB)	Changes to a new bank of instruments if possible.	
1	Modulation Wheel (MSB)	Sends a command to add modulation (vibrato) to the current sound.	
2	Breath Controller (MSB)	Sends a control from a breath device.	
3	Undefined (MSB)	-	
4	Foot Controller (MSB)	Sends a control from a foot pedal device.	
5	Portamento Time (MSB)	Controls portamento rate to slide between 2 notes played subsequently.	
6	Data Entry (MSB)	Controls Value for NRPN or RPN parameters.	
7	Channel Volume (MSB)	Controls the main volume of a channel.	
8	Balance (MSB)	Controls the stereo balance. 0 = hard left, 64 = center, 127 = hard right	
9	Undefined (MSB)	-	
10	Pan (MSB)	0 = hard left, 64 = center, 127 = hard right	
11	Expression (MSB)	Expression is a percentage of volume (CC7).	
12	Effect Control 1 (MSB)	Controls some aspect of the MIDI unit's effects.	
13	Effect Control 2 (MSB)	Controls an alternate aspect of the unit's effects.	
14	Undefined (MSB)	-	Wave: Morph X
15	Undefined (MSB)	-	Wave: Morph Y
16	General Purpose 1 (MSB)	Programmable on most units.	Trainlet: Partials
17	General Purpose 2 (MSB)	Programmable on most units.	Trainlet: Chroma
18	General Purpose 3 (MSB)	Programmable on most units.	Sample: Speed
19	General Purpose 4 (MSB)	Programmable on most units.	Sample: Jitter
20	Undefined (MSB)	-	Sample: Position
21	Undefined (MSB)	-	Live: Input Gain
22	Undefined (MSB)	-	Live: Buffer
23	Undefined (MSB)	-	Live: Jitter
24	Undefined (MSB)	-	Live: Dry/Wet
25	Undefined (MSB)	-	Grain Amplitude
26	Undefined (MSB)	-	Grain Width
27	Undefined (MSB)	-	Grain Density
28	Undefined (MSB)	-	Grain Rnd Density
29	Undefined (MSB)	-	Grain Length
30	Undefined (MSB)	-	Grain Rnd Length
31	Undefined (MSB)	-	Grain Masking
32	LSB for CC 0 (Bank Select)	Changes to a new bank of instruments if possible.	
33	LSB for CC 1 (Mod Wheel)	Sends a command to add modulation (vibrato) to the current sound.	
34	LSB for CC 2 (Breath Controller)	Sends a control from a breath device.	
35	LSB for CC 3 (Undefined)	-	
36	LSB for CC 4 (Foot Controller)	Sends a control from a foot pedal device.	
37	LSB for CC 5 (Portamento Time)	Controls portamento rate to slide between 2 notes played subsequently.	
38	LSB for CC 6 (Data Entry)	Controls Value for NRPN or RPN parameters.	
39	LSB for CC 7 (Channel Volume)	Controls the main volume of a channel.	

MIDI CC Number	MIDI CC Usual Purpose	MIDI CC Usual Purpose Description	iPulsaret
40	LSB for CC 8 (Balance)	Controls the stereo balance. 0 = hard left, 64 = center, 127 = hard right	
41	LSB for CC 9 (Undefined)	-	
42	LSB for CC 10 (Pan)	0 = hard left, 64 = center, 127 = hard right	
43	LSB for CC 11 (Expression)	Expression is a percentage of volume (CC7).	
44	LSB for CC 12 (Effect CC 1)	Controls some aspect of the MIDI unit's effects.	
45	LSB for CC 13 (Effect CC 2)	Controls an alternate aspect of the unit's effects.	
46	LSB for CC 14 (Undefined)	-	Grain Rnd CPS
47	LSB for CC 15 (Undefined)	-	Grain FM
48	LSB for CC 16 (GP 1)	Programmable on most units.	Grain FM Index
49	LSB for CC 17 (GP 2)	Programmable on most units.	Grain Env Attack (1-31; 34-63 ; 65>)
50	LSB for CC 18 (GP 3)	Programmable on most units.	Grain Env Decay (1-31; 34-63 ; 65>)
51	LSB for CC 19 (GP 4)	Programmable on most units.	Gran Env Deformation
52	LSB for CC 20 (Undefined)	-	Grainlet Off/On (0-1)
53	LSB for CC 21 (Undefined)	-	Grainlet Cycles
54	LSB for CC 22 (Undefined)	-	Grainlet Rnd Cycles
55	LSB for CC 23 (Undefined)	-	Glisson Mode (1-31; 34-63 ; 65>)
56	LSB for CC 24 (Undefined)	-	Glisson Semitones
57	LSB for CC 25 (Undefined)	-	Glisson Curve
58	LSB for CC 26 (Undefined)	-	Attack
59	LSB for CC 27 (Undefined)	-	Decay
60	LSB for CC 28 (Undefined)	-	Sustain
61	LSB for CC 29 (Undefined)	-	Release
62	LSB for CC 30 (Undefined)	-	
63	LSB for CC 31 (Undefined)	-	Pitch Bend
64	Sustain Pedal	Sustains any notes that are playing. ≤63 off, ≥64 on	
65	Portamento On/Off	Changes the state of the portamento to on or off. ≤63 off, ≥64 on	
66	Sostenuto	Sostenuto: sustains notes that are already ON. ≤63 off, ≥64 on	
67	Soft Pedal	Lowers the volume the current instrument ≤63 off, ≥64 on	
68	Legato Pedal	Applies or removes legato ≤63 off, ≥64 on	
69	Sustain Pedal 2	Lengthens the time that it takes for a note to fade-out. ≤63 off, ≥64 on	Key Lock (0-1)
70	Sound Control 1 'Sound Var'	Programmable, the default is 'Sound Variation'.	Key Samp Retrig (0-1)
71	Sound Control 2 'Resonance'	Programmable, the default is 'Timbre / VCF Resonance'.	
72	Sound Control 3 'Release'	Programmable, the default is 'Release Time'.	
73	Sound Control 4 'Attack'	Programmable, the default is 'Attack Time'.	
74	Sound Control 5 'Cutoff'	Programmable, the default is 'Brightness / VCF cutoff frequency'.	
75	Sound Control 6	Programmable, no default.	
76	Sound Control 7	Programmable, no default.	
77	Sound Control 8	Programmable, no default.	
78	Sound Control 9	Programmable, no default.	

MIDI CC Number	MIDI CC Usual Purpose	MIDI CC Usual Purpose Description	iPulsaret
79	Sound Control 10	Programmable, no default.	
80	General Purpose Controller 5	Programmable on most units. ≤63 off, ≥64 on	FX1: Echo (0-1)
81	General Purpose Controller 6	Programmable on most units. ≤63 off, ≥64 on	FX1: Left Delay
82	General Purpose Controller 7	Programmable on most units. ≤63 off, ≥64 on	FX1: Left Feedback
83	General Purpose Controller 8	Programmable on most units. ≤63 off, ≥64 on	FX1: Right Delay
84	Portamento Control	Controls the amount of Portamento.	FX1: Right Feedback
85	Undefined	-	FX2: Ring Mod (0-1)
86	Undefined	-	FX2: Frequency
87	Undefined	-	FX2: Dry/Wet
88	Undefined	-	FX3: Lowpass (0-1)
89	Undefined	-	FX3: Cutoff
90	Undefined	-	FX3: Resonance
91	Effect 1 Depth 'Reverb Send'	Usually controls reverb send amount	FX4: Hi Shelf (0-1)
92	Effect 2 Depth 'Tremelo'	Usually controls tremolo amount	FX4: Cutoff
93	Effect 3 Depth 'Chorus'	Usually controls chorus amount	FX4: Boost
94	Effect 4 Depth 'Detune'	Usually controls detune amount	FX4: Q
95	Effect 5 Depth 'Phaser'	Usually controls phaser amount	
96	(+1) Data Increment	Usually used to increment data for RPN and NRPN messages.	
97	(-1) Data Decrement	Usually used to decrement data for RPN and NRPN messages.	
98	NRPN LSB	For controllers 6, 38, 96, and 97, it selects the NRPN parameter.	
99	NRPN MSB	For controllers 6, 38, 96, and 97, it selects the NRPN parameter.	
100	RPN LSB	For controllers 6, 38, 96, and 97, it selects the RPN parameter.	
101	RPN MSB	For controllers 6, 38, 96, and 97, it selects the RPN parameter.	
102	Undefined	-	FX5: Reverb (0-1)
103	Undefined	-	FX5: Feedback
104	Undefined	-	FX5: Cutoff
105	Undefined	-	FX5: Dry/Wet
106	Undefined	-	FX6: Comp (0-1)
107	Undefined	-	FX6: Threshold
108	Undefined	-	FX6: Low Knee
109	Undefined	-	FX6: High Knee
110	Undefined	-	FX6: Ratio
111	Undefined	-	FX6: Attack
112	Undefined	-	FX6: Release
113	Undefined	-	
114	Undefined	-	
115	Undefined	-	
116	Undefined	-	
117	Undefined	-	
118	Undefined	-	
119	Undefined	-	
120	All Sound Off	Mutes all sound. Regardless of release time or sustain. (*See CC123*)	
121	All Controllers Off	Turns off controllers or sets them to default, usually 0.	

MIDI CC Number	MIDI CC Usual Purpose	MIDI CC Usual Purpose Description	iPulsaret
122	Local keyboard on/off	If set to off, a keyboard won't generate sound internally.	
123	All Notes Off	Turns all notes off. Release time maintained, notes held by sustain remain.	
124	Omni Mode Off	Turns Omni Mode off.	
125	Omni Mode On	Turns Omni Mode on.	
126	Mono Mode	Turns Monophonic operation on.	
127	Poly Mode	Turns Polyphonic operation on.	

Key	
Undefined	Free to use
Defined	Defined but uncommon; use freely
Defined	Defined with common controller; attempt to map to common usage
Defined, system	Defined with system control message; use with caution
Reserved	Reserved - do not use (NOTE: ModStep sends ModWheel with MSB & LSB; use CC1 not "Mod Wheel")
Issue	Issue to be noted (e.g. parameters that map to discrete values)