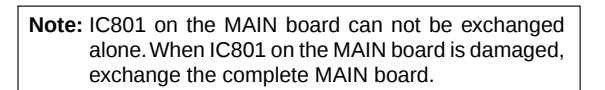


30 30



• IC PIN FUNCTION DESCRIPTION

MAIN BOARD IC801 CXD2687-001GG (SYSTEM CONTROLLER, DSP)

Pin No.	Pin Name	I/O	Description
1	DVDD00	-	Power supply terminal (for internal core)
2	DVSS00	-	Ground terminal (for internal core)
3	DVDD01	-	Power supply terminal (for internal core)
4	DVSS01	-	Ground terminal (for internal core)
5	DVDD02	-	Power supply terminal (for internal core)
6	DVSS02	-	Ground terminal (for internal core)
7	DVDD03	-	Power supply terminal (for internal core)
8	DVSS03	-	Ground terminal (for internal core)
9	DVDD04	-	Power supply terminal (for internal core)
10	DVDD05	-	Power supply terminal (for internal core)
11	DVSS05	-	Ground terminal (for internal core)
12	DVDD06	-	Power supply terminal (for internal core)
13	DVSS06	-	Ground terminal (for internal core)
14	DVDD07	-	Power supply terminal (for internal core)
15	DVSS07	-	Ground terminal (for internal core)
16	DVDD08	-	Power supply terminal (for internal core)
17	DVSS08	-	Ground terminal (for internal core)
18	DVSS09	-	Ground terminal (for internal core)
19	DVDD10	-	Power supply terminal (for internal core)
20	DVSS10	-	Ground terminal (for internal core)
21	DVDD11	-	Power supply terminal (for internal core)
22	DVSS13	-	Ground terminal (for internal core)
23	DVSS14	-	Ground terminal (for internal core)
24	USBDVDD0	-	Power supply terminal (for USB core)
25	USBDVSS	-	Ground terminal (for USB core)
26	FEPLLVDD	-	Power supply terminal (for PLL)
27	FEPLLVSS	-	Ground terminal (for PLL)
28	DACVDD	-	Power supply terminal (for D/A converter)
29	DACDVDD25	-	Power supply terminal (for D/A converter)
30	DACVSS	-	Ground terminal (for D/A converter)
31	ASYVDD	-	Power supply terminal (for asymmetry correction cell)
32	ASYVSS	-	Ground terminal (for asymmetry correction cell)
33	SVADVDD	-	Power supply terminal (for A/D converter)
34	SVADVSS	-	Ground terminal (for A/D converter)
35	MADVDD	-	Power supply terminal (for A/D converter)
36	MADVSS	-	Ground terminal (for A/D converter)
37	PLL1VDD	-	Power supply terminal (for PLL)
38	PLL1VSS	-	Ground terminal (for PLL)
39	RFADVDD	-	Power supply terminal (for A/D converter)
40	RFADVSS	-	Ground terminal (for A/D converter)
41	DCVDD	-	Power supply terminal (for D class)
42	DCVSS	-	Ground terminal (for D class)
43	OSCVDD	-	Power supply terminal (for OSC)
44	USBOSCVDD	-	Ground terminal (for OSC)
45	TSMVDD	-	Power supply terminal (for the TSB master communication)
46	MAIFVDD	-	Power supply terminal (for MA interface)

Pin No.	Pin Name	I/O	Description
47	MSJTAGVDD	-	Power supply terminal (for MS interface and JTAG)
48	USBAVDD330	-	Power supply terminal (for USB)
49	USBAVDD331	-	Power supply terminal (for USB)
50 to 52	USBAVDD150 to USBAVDD152	-	Power supply terminal (for USB)
53 to 58	USBAVSS0 to USBAVSS5	-	Ground terminal (for USB)
59	USBIFVDD	-	Power supply terminal (for USB interface)
60	USBDVDD15	-	Power supply terminal (for USB)
61	USBDVDD151	-	Power supply terminal (for USB)
62 to 64	VSS0 to VSS2	-	Power supply terminal (for OSC, USB OSC, TSB master communication, MS interface, MA interface, JTAG and USB interface)
65 to 68	IFVDD0 to IFVDD3	-	Power supply terminal (for interface)
69, 70	IFVSS0, IFVSS1	-	Ground terminal (for interface)
71 to 75	DRAMVDD0 to DRAMVDD4	-	Power supply terminal (for D-RAM interface)
76 to 78	DRAMVSS0 to DRAMVSS2	-	Ground terminal (for D-RAM interface)
79	EBIFVSS0	-	Ground terminal (for external flash memory bus interface)
80	EBIFVDD1	-	Power supply terminal (for external flash memory bus interface)
81	EBIFVSS1	-	Ground terminal (for external flash memory bus interface)
82	EBIFVDD3	-	Power supply terminal (for external flash memory bus interface)
83	EBIFVSS3	-	Ground terminal (for external flash memory bus interface)
84	EBIFVDD4	-	Power supply terminal (for external flash memory bus interface)
85	EBIFVSS4	-	Ground terminal (for external flash memory bus interface)
86	EBIFVDD5	-	Power supply terminal (for external flash memory bus interface)
87	EBIFVSS5	-	Ground terminal (for external flash memory bus interface)
88	EBIFVDD6	-	Power supply terminal (for external flash memory bus interface)
89	EBIFVSS6	-	Ground terminal (for external flash memory bus interface)
90	ASYO	O	Playback EFM duplex signal output terminal
91	ASYI	I	Playback EFM comparator slice level input terminal
92	RFI	I	Playback EFM RF signal input from the RF amplifier
93	DACVREFH	I	Reference voltage input terminal
94	APCREF_DA	O	Reference voltage output to the RF amplifier
95	PCO	O	Phase comparison output terminal for the playback EFM system master PLL
96	PCO2	O	Phase comparison output terminal for the current type Not used
97	FILI	I	Filter input terminal for the playback EFM system master PLL
98	FILO	O	Filter output terminal for the playback EFM system master PLL
99	CLTV	I	Internal VCO control voltage input terminal for the playback EFM system master PLL
100	PLL3EXTCI	I	Connection terminal for an external capacitor
101	PLL3EXTCO	O	Connection terminal for an external capacitor
102	PEAK	I	Peak hold signal input of the light amount signal (RF/ABCD) the RF amplifier
103	BOTM	I	Bottom hold signal input of the light amount signal (RF/ABCD) the RF amplifier
104	ABCD	I	Light amount signal (ABCD) input from the RF amplifier
105	FE	I	Focus error signal input from the RF amplifier
106	VC	I	Middle point voltage input from the RF amplifier
107	ADRB	I	A/D converter the lower limit voltage input terminal

Pin No.	Pin Name	I/O	Description
108	SE	I	Sled error signal input from the RF amplifier
109	TE	I	Tracking error signal input from the RF amplifier
110, 111	AUX1, AUX2	I	Auxiliary A/D input terminal Not used
112	ADRT	I	The upper limit voltage of A/D converter input terminal
113	APC	I	Error signal input terminal for the laser automatic power control Not used
114	ADC1EXTC	-	Connection terminal for an external capacitor (for A/D converter)
115	TEMP_MON	I	Thermistor connection terminal for temperature detection
116	VB_MON	I	Monitor input terminal of rechargeable battery power supply voltage (UNREG)
117	CHG_MON	I	Charge or discharge current monitor input from power control IC
118	VREF_MON	I	Reference voltage monitor input from the RF amplifier
119, 120	SET_KEY_1, SET_KEY_2	I	Set key input terminal (A/D input)
121	DCIN_DET	I	Monitor input terminal of DC input voltage for battery charge Not used
122	HIDC_MON	I	Monitor input terminal of High DC voltage
123	WK_DET	I	Detection terminal of panel key input for system wake up
124	VBUS_MON	I	Monitor input terminal of USB power supply voltage (VBUS)
125	BATT_MINUS_ MON	I	Monitor input terminal of battery minus terminal
126	RMC_KEY	I	Remote commander key input terminal (A/D input)
127	XHOLD_SW	I	HOLD switch input terminal
128	DRAM_HOLD_ DET	I	Detection terminal for internal D-RAM power supply information keeping
129	JOG_A	I	Jog dial pulse input terminal (A phase) Not used
130	JOG_B	I	Jog dial pulse input terminal (B phase) Not used
131	OPEN_CLOSE_ SW	I	Top panel open/close detection switch input terminal
132	XREC_KEY	I	REC key input terminal
133	XTEST	I	Input terminal for the test mode setting "L": test mode
134	HALF_LOCK_ SW	I	Top panel open switch detection terminal
135	XRST	I	System reset signal input terminal
136	ADC3VREFH	I	Reference voltage input terminal (High voltage)
137	ADC3VREFL	I	Reference voltage input terminal (Low voltage)
138	ADC3EXTC	O	Connection terminal for an external capacitor (for A/D converter)
139	VINP	I	RF signal input from the RF amplifier
140	ADFG	I	ADIP duplex FM signal (19.05kHz to 21.05 kHz) input from the RF amplifier
141	TRDR	O	Tracking servo drive PWM signal output (-) to the coil driver
142	TFDR	O	Tracking servo drive PWM signal output (+) to the coil driver
143	FFDR	O	Focus servo drive PWM signal output (+) to the coil driver
144	FRDR	O	Focus servo drive PWM signal output (-) to the coil driver
145	FS4	O	176.4 kHz clock signal output to the over write head driver and power control IC
146	SLVS	O	Sled servo drive PWM signal output to the motor driver
147	SPDU	O	Spindle motor drive control signal output (U) to the motor driver
148	SPVS	O	Spindle servo drive PWM signal output to the motor driver
149	SPDV	O	Spindle motor drive control signal output (V) to the motor driver
150	SPDW	O	Spindle motor drive control signal output (W) to the motor driver
151	SPCU	I	Spindle motor drive comparison signal input (U) from the motor driver
152	SPCV	I	Spindle motor drive comparison signal input (V) from the motor driver

Pin No.	Pin Name	I/O	Description
153	SPCW	I	Spindle motor drive comparison signal input (W) from the motor driver
154	SLDV	O	Sled motor drive control signal output (V) to the motor driver
155	SLDW	O	Sled motor drive control signal output (W) to the motor driver
156	SLCU	I	Sled motor drive comparison signal input (U) from the motor driver
157	SLCV	I	Sled motor drive comparison signal input (V) from the motor driver
158	SLCW	I	Sled motor drive comparison signal input (W) from the motor driver
159	SLDU	O	Sled motor drive control signal output (U) to the motor driver
160	FS256OUT	O	11.2896 MHz clock output to the RF amplifier
161	CHOPPERCLK	O	Clock signal output for chopper to the over write head driver
162 to 165	MNT0 to MNT3	O	Monitor output terminal for DSP Not used
166	OFTRK	I/O	Tracking signal input/output for MD3
167	NC	-	Not used
168	EFMO	O	EFM encode data output for the recording to the over write head driver
169	HI_Z_SLD	O	Standby signal output for the sled motor to the motor driver
170	RST_CONT	O	Reset signal output to the power control IC
171	PROTECT	I	Recording protector for normal disc detection switch input terminal
172	HIMD_PROTECT	I	Recording protector for Hi-MD disc detection switch input terminal
173 to 175	MNT4 to MNT6	O	Monitor output terminal for DSP Not used
176	RECP	O	Laser power selection signal output to the power control IC
177	IAMP_CAL_MODE	O	Current sensing amplifier short switch control signal output terminal
178	SI0	I	Serial data input from the real time clock, EEPROM and power control IC
179	SO0	O	Serial data output to the real time clock, EEPROM and power control IC
180	SCK0	O	Serial data transfer clock signal output to the real time clock, EEPROM and power control IC
181	XGUM_ON	I	Rechargeable battery insert detection switch input terminal
182	BEEP	O	Beep sound control signal output to the headphone amplifier
183	XCS_PWR_IC	O	Chip select signal output to the power control IC
184, 185	PD_S0, PD_S1	O	PD IC mode selection signal output to the optical pick-up block
186	RECPDLY	O	Internal setting selection signal output to the RF amplifier
187, 188	RF4, RF5	-	Not used
189	CS_RTC	O	Chip select signal output to the real time clock
190, 191	NC	-	Not used
192, 193	D_EN1, D_EN2	O	Headphone/LINE/beep selection signal output to the headphone amplifier
194	USBC_SLEEP	O	USB suspend notice signal output to the power control IC
195	XI_SENSE	O	Current limit circuit control signal output terminal when adapter is used "L": charge
196, 197	I_SEL1, I_SEL2	O	Charge current control signal output terminal H: low current charge
198	XRST_MTR_DRV	O	Reset signal output to the motor driver
199	XCE_EFM_CTL	O	EFM output selection enable signal output terminal
200	EFM_SEL	O	EFM output selection signal output terminal
201	PH2	O	Power supply on/off control signal output terminal for the USB
202	LED_RED	O	Recording indication LED drive signal output terminal
203	LED_GREEN	-	Not used
204	XRST2_DET	I	Reset signal input from the power control IC
205	CHGI_SEL	O	Charge/discharge control signal output for current detection amplifier to the charge control IC
206, 207	PH7, PH10	-	Not used
208	USB_WAKE	O	System wake up signal output terminal by USB connection

Pin No.	Pin Name	I/O	Description
209	USB_CHARGE	O	USB charge control signal output terminal
210	XRF_RST	O	Reset signal output to the RF amplifier
211	CHG_PWM	O	Charge current or voltage control signal output to the charge control IC
212	IAMP_CAL	O	Offset signal output for current detection amplifier to the charge control IC
213	XMUTE	O	Muting on/off control signal output terminal
214	D_VCONT_PWM	O	Voltage control signal output to the headphone amplifier
215	PWM4	-	Not used
216	XCS_USB_DRV	-	Not used
217	XCS_REC_DRV	-	Not used
218	XCS_REC_USB	O	Chip select signal output to the power control IC
219	USB_VDD_SW	-	Not used
220	XCS_NV	O	Chip select signal output to the EEPROM
221	VBUS_DET	I	Detection terminal of USB power supply
222	SSB_DATA	I/O	SSB data input/output with the RF amplifier
223	SSB_CLK	O	SSB clock output to the RF amplifier
224	HI_Z_SPDL	O	Standby signal output for the spindle motor to the motor driver
225	LDPEN	O	Pulse/DC light-emit selection signal output to the optical pick-up block
226 to 229	HNH, HNL, HPH, HPL	O	EFM encode data output for the recording to the over write head driver
230, 231	TEST, TEST2	I	Input terminal for the test Not used
232	HSALF	I	Setting terminal
233, 234	JTAG0, JTAG1	I/O	Setting terminal
235	XLSRCK	O	Pulse output for laser strobe recording to the optical pick-up
236	USBHOLD2	I	Detection terminal of USB power supply
237	VBUS_VB_CTL	O	USB power supply control signal output terminal
238	CHG_CTL	O	Constant current circuit control signal output to the charge control IC
239	IAMP_CTL	O	Current sense amplifier control signal output to the charge control IC
240	D_ENVREG	O	Internal power supply on/off control signal output to the headphone amplifier
241	TAT	I	Not used
242	TAN	I	Not used
243	NAR	I	Not used
244	IDO	I	Not used
245	SAK	O	Not used
246	RTCK	O	Not used
247	SI3	I	Serial data output terminal Not used
248	SO3	O	Serial data output to the A/D converter
249	SCK3	O	Serial data transfer clock signal output to the A/D converter
250	SI4	I	Serial data input from the display driver IC
251	SO4	O	Serial data output to the display driver IC
252	SCK4	O	Serial data transfer clock signal output to the display driver IC
253	EL_VDD_CTL	O	EL power supply on/off control signal output terminal
254	XCS_DISPLAY	O	Chip select signal output to the display driver IC
255	OPT_DET	I	Optical digital input plug detection signal input terminal "H": optical in
256	XJACK_DET	I	Line input plug detection signal input terminal "L": plug in
257	XMIC_DET	I	Microphone input plug detection signal input terminal "L": plug in
258	DOUT	O	Not used
259	XCS_ADC	O	Chip select signal output to the A/D converter

Pin No.	Pin Name	I/O	Description
260	XPD_ADC	O	Power control signal output to the A/D converter
261	PAUSE_KEY	I	Pause key input terminal
262	XOPT_CTL	O	Power supply on/off control signal output terminal for the optical input jack
263	DRAM_VDD_CLR	O	Internal D-RAM power supply latch clear signal output for quick mode sleep
264	XDRAMVDD_SEL	O	Power supply control signal output terminal for the FCRAM
265	DRAM_ALONE	O	Power on/off control signal output terminal for internal D-RAM
266	DRAMVDD_DISCHG	O	Power supply discharge control signal output terminal for internal D-RAM
267	PCB	-	Not used
268	XRST_DISPLAY	O	Reset signal output to the display driver IC
269	PC2	-	Not used
270	EX512	-	Not used
271	FS256	O	Master clock signal (256Fs=11.2896 MHz) output to A/D converter
272	ADDT	I	Data input from A/D converter
273	LRCK	O	L/R sampling clock signal (44.1kHz) output to external A/D converter
274	XBCK	O	Bit clock (2.8224 MHz) output to the external A/D converter
275	DIN	I	Digital audio signal input terminal
276	OSCI	I	Main system clock input terminal (22.5792 MHz)
277	OSCO	O	Main system clock output terminal (22.5792 MHz)
278	FS512	O	Clock signal (512Fs=22.5792 MHz) output to the headphone amplifier
279	DCLSOUTR	O	PWM modulator signal output to the headphone amplifier (R-CH)
280	DCLSOUTL	O	PWM modulator signal output to the headphone amplifier (L-CH)
281	RMC_DTCK	I/O	TSB master data clock input/output or SSB data input/output with the remote commander
282	UDP	I/O	USB data (+) input/output terminal
283	UDM	I/O	USB data (-) input/output terminal
284	RREF	I	Connection terminal for an external resistor
285	VSNS	I	Connection terminal for an external resistor
286	SUSPEND	O	USB suspend signal output to the power control IC
287	DTL	O	USB pull-up resistor connection control terminal
288	USBHOLD	I	USB power supply separation signal input from the power control IC
289	USBOSCE	I	Not used
290	UOSCI	I	USB system clock input terminal (48 MHz) (for USB oscillation circuit)
291	UOSCO	O	USB system clock output terminal (48 MHz) (for USB oscillation circuit)
292	FCRAMVDD0	-	Power supply terminal (FCRAM system)
293	FCRAMVSS0	-	Ground terminal (for FCRAM)
294	FCRAMVDD1	-	Power supply terminal (FCRAM system)
295	FCRAMVSS1	-	Ground terminal (for FCRAM)
296	FLASHVDD0	-	Power supply terminal (for FLASH)
297	FLASHVSS0	-	Ground terminal (for FLASH)
298 to 302	PE0 to PE4	-	Not used
303	MDVCC_CTL	O	Power supply control signal output terminal for the optical pick-up block
304	VC3_CTL	O	Power supply control signal output terminal Not used
305	EL_PWR_CTL	O	EL power supply on/off control signal output terminal
306	EBA1	-	Not used
307	EBA2	-	Not used
308	EBA11	-	Not used

MZ-RH1

Pin No.	Pin Name	I/O	Description
309	EBA13	-	Not used
310	EBA18	-	Not used
311	EBA22	-	Not used
312	EBD0	-	Not used
313	EBD1	-	Not used
314	EBD3	-	Not used
315	EBWE2	-	Not used
316	EBWR1	-	Not used