

## 6. SIGNAL ASSIGNMENTS AND CONNECTIONS

The signal assignments and connections at the multi-pin connectors on each module, the rear panel, and the MCC are given in the tables below. They are also shown in Fig. 5-1 and Fig. 5-2.

### 6-1. Connection at Rear Multi-Pin Connector Z101

See Table 6-1.

### 6-2. Connection at TX Module Connector Z103 (Z203)

See Table 6-2.

### 6-3. Connection at POW AMP Module Connector Z104 (Z204)

See Table 6-3.

### 6-4. Connection at RX Module Connector Z105 (Z205)

See Table 6-4.

### 6-5. Connection at SYNTH Module Connector Z106 (Z206)

See Table 6-5.

6-6. Connection at PS Module Connector Z107 (Z207)

See Table 6-6.

6-7. Connection at MCC Connector Z108 (Z208)

See Table 6-7.

## CONNECTION AT REAR MULTI-PIN CONNECTOR Z101

Signal		Connection		Remarks
Abbreviation	Description	Z101	To/From	
IGNITION	Ignition Line ("On" at +13.2V)	1	To Z107 (5)	
BATTERY (+)	+13.2V Battery Input Line	26	To Z107 (3)	
BATTERY (+)	+13.2V Battery Input Line	2	To Z107 (4)	
BATTERY GND	Battery Ground Line	27	To Z107 (1)	
BATTERY GND	Battery Ground Line	3	To Z107 (2)	
MAIN SW	Main Switch Line ("On" at GND)	28	To Z107 (6)	
ENTERTAINMENT MUTE		4	To Z108 (6)	
AF TO 5W AMP	MCC Audio Out Line	29	From Z108 (32)	
HORN ALM	Horn Alarm Line	5	From Z108 (12)	
BUZZER ENABLE	Buzzer Enable Line	30	From Z108 (15)	
PS OUT (+B)	+13.2V Power Supply Out	6	From Z107 (9)(10)	
HANDSFREE		31	To Z108 (40)	
MIC AF SIG	Audio Input Line	7	To Z108 (41)	
MIC AF GND	Audio Input Ground Line	32	To Z108 (42)	
EMERGENCY SW		8	From Z108 (38)	
HOOK SW	Hook Switch Line	33	From Z108 (39)	
CCIR FOR RELAY PAGER		9	From Z108 (44)	
2400Hz PL TONE	Pilot Tone Line	34	From Z108 (52)	
	Non-Use	10	Z108 (43)	
DATA FROM HS	Data Line from Handset	35	From Z108 (16)	
+5V REG OUT	MCC +5V Regulator Out	11	From Z108 (51)	
DB0		36	Z108 (17)	
DB1		12	Z108 (19)	
DB2		37	Z108 (21)	
DB3		13	Z108 (23)	

Signal		Connection		Remarks
Abbreviation	Description	Z101	To/From	
DB4		38	Z108 (25)	
DB5		14	Z108 (27)	
DB6		39	Z108 (29)	
DB7		15	Z108 (31)	
CLK TO HS	Clock to Handset	40	To Z108 (9)	
RELAY PAGER IN/OUT		16	To/From Z108 (7)	
DATA TO HS	Data Line to Handset	41	To Z108 (10)	
AF TO EARPHONE	MCC Audio Out Line	17	From Z108 (36)	
INVERTED CD		42	From Z108 (30)	
RELAY PAGER ENBL		18	To Z108 (5)	
GND	GND Line for Each Connector	43		
SYNTH CLK	CH Select Clock Line	19	To/From Z108 (26)	Testing Only
SYNTH STB	CH Select Strobe Line	44	To/From Z108 (28)	"
SYNTH DATA	CH Select Data Line	20	To/From Z108 (24)	"
SYNTH ALM	Synthesizer Unlock Line	45	From Z106 (10)	"
TX KEY	TX On/Off Control Line	21	To Z103 (3), Z104 (4)	"
	Non-Use	46	Z103 (6)	
PWR CONT (M, L, POWER)	RF PWR Reduce Line	22	To Z104 (3)	Testing Only
PWR MON	RF PWR Monitor Line	47	From Z104 (2)	"
CDL	Squelch Line	23	From Z105 (9)	"
CDH	20 dBm Carrier Detect	48	From Z105 (8)	"
GND	GND Line for Testing	24		"
AF FROM RX	RX Audio Out Line	49	From Z105 (5)	"
	Non-Use	25	Z105 (4)	
AF TO TX	TX Audio Input Line	50	To Z103 (10)	Testing Only

CONNECTION AT TX MODULE CONNECTOR Z103 (Z203)

Signal		Connection		Remarks
Abbreviation	Description	Z103	To/From	
GND	Ground Line	1		
PS (+13.2V)	+13.2V Power Supply Line	2	From Z107 (9)(10)	
TX-ON	TX-On/Off, ("H" On)	3	From Z108 (20), Z101 (21)	
TX-ALM (OUT)	TX Unlock Line ("H" Alarm)	4	To Z104 (5)	
	Non-Use	5	Z105 (4)	
	"	6	Z108 (18), Z101 (46)	
	No Connection	7		
	"	8		
GND (AF LINE)	TX Audio Ground Line	9		
TX-AF (IN)	TX Audio Input Line	10	From Z108 (46), Z101 (50)	

CONNECTION AT POW AMP MODULE CONNECTOR Z104 (Z204)

Signal		Connection		Remarks
Abbreviation	Description	Z104	To/From	
GND	Ground Line	1		
PWR MON (OUT)	PWR Monitor ("H"=Detected "L"=Non-Detected)	2	To Z101 (47), Z107(12),Z108(13)	
PWR CONT (M, L, POWER)	PWR Reduce 8V:L Power 4V:M Power	3	From Z101 (22), Z108 (22)	
TX-ON	TX-On/Off ("H" On)	4	From Z101 (21), Z108 (20)	
TX-ALM (IN)	TX Unlock ("H" Alarm)	5	From Z103 (4)	

CONNECTION AT RX MODULE CONNECTOR Z105 (Z205)

Signal		Connection		Remarks
Abbreviation	Description	Z105	To/From	
GND	Ground Line	1		
PS (+13.2V)	+13.2V Power Supply Line	2	From Z107 (9)(10)	
GND	Ground Line	3		
	Non-Use	4	Z103 (5), Z101 (25)	
RX-AF (OUT)	RX Audio Output Line	5	To Z108 (49), Z101 (49)	
CDM (OUT)	15.5 dB <sub>u</sub> Carrier Detect	6	To Z108 (50)	
GND	Ground Line	7		
CDH (OUT)	20 dB <sub>u</sub> Carrier Detect	8	To Z108 (8), Z101 (48)	
CDL (OUT)	0 dB <sub>u</sub> Carrier Detect	9	To Z107(14), Z108(11), Z101(23)	
	No Connection	10		

CONNECTION AT SYNTHESIZER MODULE CONNECTOR Z106 (Z206)

Signal		Connection		Remarks
Abbreviation	Description	Z106	To/From	
GND	Ground Line	1		
PS (+13.2V)	+13.2V Power Supply Line	2	From Z107 (9)(10)	
DATA	CH Select Data Line	3	From Z101 (20), Z108 (24)	
STB	CH Select Strobe Line	4	From Z101 (44), Z108 (28)	
CLK	CH Select Clock Line	5	From Z101 (19), Z108 (26)	
	No Connection	6		
	No Connection	7		
	No Connection	8		
	No Connection	9		
ALM	Synth Unlock Line "H" ALM	10	To Z101 (45), Z108 (14)	



## CONNECTION AT PS MODULE CONNECTOR Z107 (Z207)

Signal		Connection		Remarks
Abbreviation	Description	Z107	To/From	
GND (BAT)	Battery Ground Line	1	From Z101 (3)(27)	
GND (BAT)	"	2	"	
BAT (IN)	+13.2V Battery Input Line	3	From Z101 (2)(26)	
BAT (IN)	"	4	"	
IGN	Ignition Line ("On" at +13.2V)	5	From Z101 (1)	
PWR SW	Main Switch Line ("On" at GND)	6	From Z101 (28)	
GND	Ground Line	7		
GND	"	8		
PS OUT (+13.2V)	+13.2V Power Supply Output	9		
PS OUT (+13.2V)	"	10		
	No Connection	11		
PWR MON (IN)	RF PWR Monitor Line ("H"=Detected "L"=Non-Detected)	12	From Z104 (2)	
AN RST	Autonomous Reset Line	13	From Z108 (34)	
CDL (IN)	Squelch (CDL) Line	14	From Z105 (9)	
AN CLK (400 Hz)	Autonomous Clock Line	15	From Z108 (33)	

## CONNECTION AT MCC CONNECTOR Z108 (Z208)

Signal		Connection		Remarks
Abbreviation	Description	Z108	To/From	
GND	Ground Line	1		
PS	+13.2V Power Supply Line	2	From Z107 (9)(10)	
GND	Ground Line	3		
PS	+13.2V Power Supply Line	4	From Z107 (9)(10)	
RELY PAGER ENBL		5	To Z101 (18)	
ENTERTAINMENT MUTE		6	To Z101 (4)	
RELY PAGER IN/OUT		7	To/From Z101 (16)	
CDH	20 dB Carrier Detect	8	From Z105 (8)	
CLK TO HS	Clock to Handset	9	To Z101 (40)	
DATA TO HS	Data to Handset	10	To Z101 (41)	
CDL	Squelch Line	11	From Z105 (9)	
HORN ALARM	Horn Alarm Line	12	To Z101 (5)	
PWR MON	RF PWR Monitor Line	13	From Z104 (2)	
SYNTH ALM	Synthesizer Unlock Line	14	From Z106 (10)	
BUZZER ENBL	Buzzer Enable Line	15	To Z101 (30)	
DATA FROM HS	Data from Handset	16	From Z101 (35)	
DB0		17	Z101 (36)	
	No Connection	18		
DB1		19	Z101 (12)	
TX KEY	TX On/Off Control Line	20	To Z104 (4)	
DB2		21	Z101 (37)	
(M,L POWER) PWR CONT	RF PWR Reduce Line	22	To Z104 (3)	
DB3		23	Z101 (13)	
SYNTH DATA	CH Select Data Line	24	To Z106 (3)	
DB4		25	Z101 (38)	

Signal		Connection		Remarks
Abbreviation	Description	Z108	To/From	
SYNTH CLK	CH Select Clock	26	To Z106 (5)	
DB5		27	Z101 (14)	
SYNTH STB	CH Select Strobe Line	28	To Z106 (4)	
DB6		29	Z101 (39)	
INVERTED CD		30	Z101 (42)	
DB7		31	Z101 (15)	
AF TO 5W AMP	MCC Audio Output Line	32	To Z101 (29)	
AN CLK (400 Hz)	Autonomous CLock Line	33	To Z107 (15)	
AN RST	Autonomous Reset Line	34	To Z107 (13)	
	No Connection	35		
AF TO EARPHONE	MCC Audio Output Line	36	To Z101 (17)	
GND	Ground Line	37		
EMERGENCY SW		38	From Z101 (8)	
HOOK SW	Hook Switch Line	39	From Z101 (33)	
HANDSFREE		40	From Z101 (31)	
AF MIC SIG	Audio Input Line	41	From Z101 (7)	
AF MIC GND	Audio Input Ground Line	42	From Z101 (32)	
	Non-Use	43	Z101 (10)	
CCIR FROM RELAY PAGER HOLDER		44	Z101 (9)	
GND	Ground Line	45		
AF TO EXITER SIG	TX Audio Input Line	46	To Z103 (10)	
AF TO EXITER GND	TX Audio Ground Lin	47	To Z103 (9)	
GND	Ground Line	48		
AF FROM RX SIG	RX Audio Output Line	49	From Z105 (5)	
CDM	15.5 dBμ Carrier Detect	50	From Z105 (6)	

Signal		Connection		Remarks
Abbreviation	Description	Z108	To/From	
+5V PS (OUT)	MCC +5V Regulator Out	51	To Z101 (11)	
2400 Hz PILOT TONE	Pilot Tone Line	52	To Z101 (34)	
GND	Ground Line	53		