

G24 Connector Signals:

GND	1	2	GND
GND	3	4	GND
VCC	5	6	VCC
VCC	7	8	VCC
RTS_N	9	10	USB_VBUS
RXD_N	11	12	USB_DP
DSR_N	13	14	USB_DN
CTS_N	15	16	WKUPL_N
DCD_N	17	18	PCM_DIN
DTR_N	19	20	PCM_DOUT
TXD_N	21	22	PCM_CLK
RI_N	23	24	PCM_FS
RESET_N	25	26	WKUPO_N
VREF	27	28	GPIO1
RXD2_N	29	30	GPIO2
TXD2_N	31	32	GPIO3
RTS2_N	33	34	GPIO4
CTS2_N	35	36	GPIO5
ADC1	37	38	GPIO6
TXEN_N	39	40	GPIO7
ANT_DET	41	42	GPIO8
ADC2	43	44	SIM_RST_N
UID	45	46	SIM_CLK
ADC3	47	48	SIM_VCC
GPRS	49	50	SIM_PD_N
IGN	51	52	SIM_DIO
ON_N	53	54	LCD_CS*
HDST_INT_N	55	56	LCD_SD*
HDST_MIC	57	58	LCD_CLK*
AGND	59	60	LCD_RS*
MIC	61	62	DU**
ALRT_N	63	64	DU**
ALRT_P	65	66	DU**
SPKR_N	67	68	DU**
SPKR_P	69	70	DU**

* - Only for JAVA enabled version. DU for OEM.

** - Do Not Use. Must be left unconnected.

G24- G20 Pinout Comparison:

Connector Pin #	G20	G24
1	GND	GND
2	GND	GND
3	GND	GND
4	GND	GND
5	VCC	VCC
6	VCC	VCC
7	VCC	VCC
8	VCC	VCC
9	RTS_N	RTS_N
10	USB_VBUS	USB_VBUS
11	RXD_N	RXD_N
12	USB_DP	USB_DP
13	DSR_N	DSR_N
14	USB_DN	USB_DN
15	CTS_N	CTS_N
16	WKUPI_N	WKUPI_N
17	DCD_N	DCD_N
18	PCM_DIN	PCM_DIN
19	DTR_N	DTR_N
20	PCM_DOUT	PCM_DOUT
21	TXD_N	TXD_N
22	PCM_CLK	PCM_CLK
23	RI_N	RI_N
24	PCM_FS	PCM_FS
25	RESET_N	RESET_N
26	WKUPO_N	WKUPO_N
27	Not Used	VREF
28	Not Used	GPIO1
29	Not Used	RXD2_N
30	Not Used	GPIO2
31	Not Used	TXD2_N
32	Not Used	GPIO3
33	Not Used	RTS2_N
34	Not Used	GPIO4
35	Not Used	CTS2_N
36	Not Used	GPIO5
37	ENT_MUTE	ADC1
38	Not Used	GPIO6
39	TX_EN_N	TXEN_N
40	Not Used	GPIO7
41	ANT_DET	ANT_DET
42	Not Used	GPIO8
43	Not Used	ADC2
44	SIM_RST_N	SIM_RST_N
45	Not Used	UID
46	SIM_CLK	SIM_CLK
47	THERM*	ADC3
48	SIM_VCC	SIM_VCC
49	GPRS_DET_N	GPRS
50	SIM_PD_N	SIMD_N
51	IGN	IGN
52	SIM_DIO	SIM_DIO
53	ON_OFF_N	ON_N
54	Not Used	LCD_CS

Connector Pin #	G20	G24
55	HDST_INT_N	HDST_INT_N
56	Not Used	LCD_SD
57	HDST_MIC	HDST_MIC
58	Not Used	LCD_CLK
59	MIC_GND	AGND
60	Not Used	LCD_RS
61	MIC	MIC
62	Not Used	Not Used
63	ALRT_N	ALRT_N
64	Not Used	Not Used
65	ALRT_P	ALRT_P
66	Not Used	Not Used
67	SPKR_N	SPKR_N
68	Not Used	Not Used
69	SPKR_P	SPKR_P
70	Not Used	Not Used

* - Not Used in G20

G24 Detailed Signals:

Pin No.	Name	Description	I/O	Active H/L	PU / PD	EE [V]		
						min	typ	max

Power Supply

1	GND	Ground						
2	GND	Ground						
3	GND	Ground						
4	GND	Ground						
5	VCC	Power supply	I			3.0	3.6	4.2
6	VCC	Power supply	I			3.0	3.6	4.2
7	VCC	Power supply	I			3.0	3.6	4.2
8	VCC	Power supply	I			3.0	3.6	4.2

Controls

16	WКУPI_N	G20 wakeup	I	L	22KPU		2.775	
26	WКУPO_N	Host wakeup	O	L	22KPU		2.775	
25	RESET_N	Reset signal	O	L	47KPD		2.775	
53	ON_N	On/Off switch	I	L	200KPU		3.6	
51	IGN	Ignition input	I	H	10KPD		3.6	
39	TXEN_N	GSM Transmit indicator	O	L	100KPU		2.775	
41	ANT_DET	Antenna presence indicator	O	H	100KPU		2.775	
49	GPRS_DET	GPRS coverage indicator	O	L	100KPU		2.775	

RS232

21	TXD_N	RS232 TXD (DTE)	I	L	100KPU		2.775	
11	RXD_N	RS232 RXD (DTE)	O	L	100KPU		2.775	
9	RTS_N	RS232 RTS	I	L	100KPU		2.775	
15	CTS_N	RS232 CTS	O	L	100KPU		2.775	
19	DTR_N	RS232 DTR	I	L	100KPU		2.775	
13	DSR_N	RS232 DSR	O	L	100KPU		2.775	
17	DCD_N	RS232 DCD	O	L	100KPU		2.775	
23	RI_N	RS232 RI	O	L	100KPU		2.775	
29	RXD2_N	UART2 RXD (DTE)	O	L	100KPU		2.775	
31	TXD2_N	UART2 TXD (DTE)	I	L	100KPU		2.775	
33	RTS2_N	UART2 RTS	I	L	100KPU		2.775	
35	CTS2_N	UART2 CTS	O	L	100KPU		2.775	

Pin No.	Name	Description	I/O	Active H/L	PU / PD	EE [V]		
						min	typ	max

USB

10	USB_VBUS	USB bus power supply	I	H			5.0	
12	USB_DP	USB serial data	I/O	H	1.5KPU		3.3	
14	USB_DN	USB serial data inverted	I/O	L			3.3	

SIM Card

50	SIM_PD_N	SIM presence detect	I	L	47KPU		2.775	
48	SIM_VCC	SIM supply	O				3.0	
44	SIM_RST_N	SIM reset	O	L	5.6KPU		3.0	
52	SIM_DIO	SIM serial data	I/O	H	22KPU		3.0	
46	SIM_CLK	SIM clock	O		5.6KPU		3.0	

Digital Audio

18	PCM_DIN	Digital audio receive	I	H	100KPD		2.775	
20	PCM_DOUT	Digital audio transmit	O	H	100KPU		2.775	
22	PCM_CLK	Digital audio clock	O		100KPD		2.775	
24	PCM_FS	Digital audio frame sync.	O	H	100KPD		2.775	

GPIOs

28	GPIO1	General purpose I/O	I/O		22KPU		2.775	
30	GPIO2	General purpose I/O	I/O		22KPU		2.775	
32	GPIO3	General purpose I/O	I/O		22KPU		2.775	
34	GPIO4	General purpose I/O	I/O		22KPU		2.775	
36	GPIO5	General purpose I/O	I/O		22KPU		2.775	
38	GPIO6	General purpose I/O	I/O		22KPU		2.775	
40	GPIO7	General purpose I/O	I/O		22KPU		2.775	
42	GPIO8	General purpose I/O	I/O		22KPU		2.775	

Audio

67	SPKR_N	Speaker inverted	O					
69	SPKR_P	Speaker	O					

Pin No.	Name	Description	I/O	Active H/L	PU / PD	EE [V]		
						min	typ	max
63	ALRT_N	Alert speaker inverted	O					
65	ALRT_P	Alert speaker	O					
61	MIC	Microphone input	I					
59	AGND	Audio ground						
57	HDST_MIC	Headset microphone	I					
55	HDST_INT_N	Headset detect interrupt	I	L	100KPU		2.775	

A/D

37	ADC1	General Purpose A/D	I					
43	ADC2	General Purpose A/D	I					
47	ADC3	General Purpose A/D	I					
45	UID	EMU accessory detect A/D	I					