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MOTOROLA WIRELESS MODULES

Delivering seamless mobility to the M2M world

G-LITE

GSM/GPRS Module



Motorola Wireless Modules



Agenda:

- 1 Product Overview
- 2 Product Specifications
- 3 Approvals and Regulations
- 4 G24 - G-LITE Compatibility





Product Overview

Motorola general business information, Sales presentation Rev 1
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Product Overview



- G-LITE is a GSM/GPRS Module
- Target market: High Volumes Applications
- Same form factor as G24
- Functional compatibility with G24
- Expected S/A date: Q3/2007
- Samples will be available Q2/2007
- Less Flexible models
- Irreversible Purchase Orders with 12 Months commitment





Product Specifications

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HW/SW Specifications



- GSM Bands : Quad Band: 900/1800 - 850/1900 Mhz
- Release Compliant : R99
- GPRS Data Transfer : Multi Slot Class 10 (4 Down, 2 Up)
- Voice Vcoders: AMR / EFR/ FR/ HR
- Packet CS: CS1-CS4
- CSD - data call : BR 14.4 Kbps
- RF Connector : MMCX
- 70 Pin Connector : Molex Interface Connector



HW/SW Specifications – (Cont.)



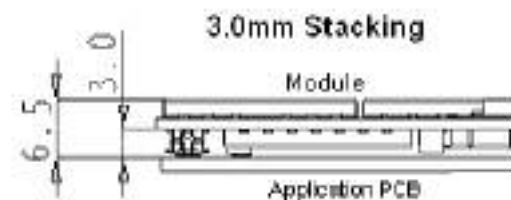
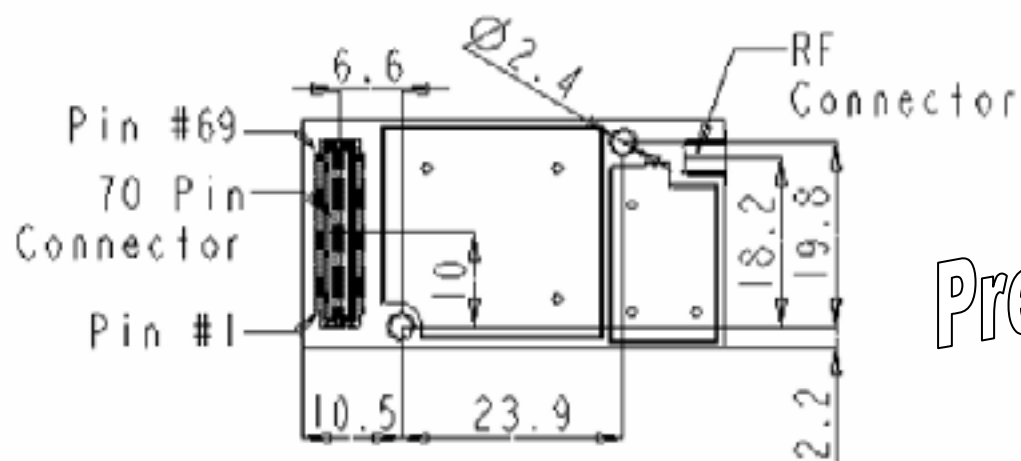
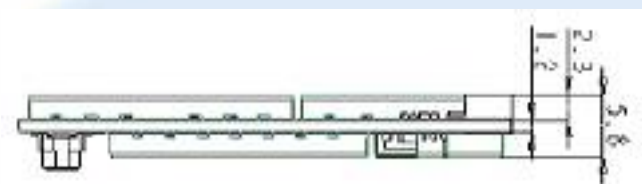
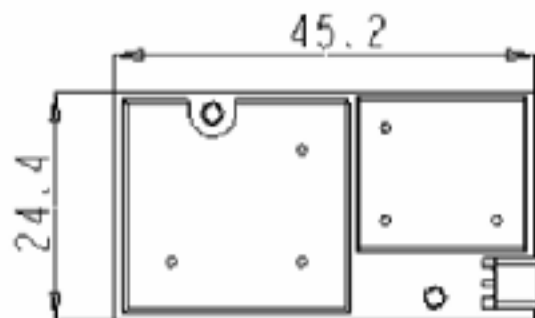
- External SIM :Through Interface Connector 1.8V/3V
- Internal TCP/IP (Ascii & Binary Modes)
- USB Port - full speed USB 1.1
- RS232 8 signals Full handshake
- SMS : PDU and Text mode
- Low Power mode : Sleep Mode



Mechanical Specifications



G24 Mechanical Dimensions



Preliminary Information



Approvals and Regulations

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Approvals and Regulations



PRODUCT SAFETY AND COMPLIANCE:

- R&TTE (RADIO & TELECOMMUNICATIONS TERMINAL EQUIPMENT)
- GCF (GLOBAL CERTIFICATION FORUM)
- FCC (FEDERAL COMMUNICATION COMMISSION)
- PTCRB (PCS TYPE CERTIFICATION REVIEW BOARD)
- IC (INDUSTRY CANADA)
- FTA (FORMAL TYPE APPROVAL)
- SAR (SPECIFIC ABSORPTION RATIO)
- RoHS Compliance





G24 - G-LITE Compatibility

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G24 - G-LITE Compatibility



Requirement	G24	G-Lite
Technologies	GSM, GPRS, Edge	GSM, GPRS
Size (mm) (L x W x H)	45.2 x 24.4 x 6 (mm)	45.2 x 24.4 x 6 (mm)
Weight (g)	10.1 Gram	Less Than 10.1 Gram
GSM Bands	Quad Band: 900/1800 - 850/1900 Mhz	Quad Band: 900/1800 - 850/1900 Mhz
Release Compliant	R99	TBD
GPRS Data Transfer	Multi Slot Class 10 (4 Down, 2 Up)	Multi Slot Class 10 (4 Down, 2 Up)
Voice	Vocoders: AMR / EFR/ FR/ HR	Vocoders: AMR / EFR/ FR/ HR
Packet	CS: CS1-CS4	CS: CS1-CS4
CSD - data call	BR 14.4 Kbps	BR 14.4 Kbps
PDP types	IP Internet Protocol (IETF STD 5)	IP Internet Protocol (IETF STD 5)
RF Connector	MMCX	MMCX
70 Pin Connector	Interface Connector	Interface Connector
External SIM	External - 3V	External - 1.8V/3V (TBD)
Java	Yes	No
Sleep Mode Currents	2.5-3 mA	3-5 mA

G24 - G-LITE Compatibility (cont'd)



Requirement	G24	G-Lite
Antenna Detect	See AT Commands Compliance Page	See AT Commands Compliance Page
USB Port - full speed	USB 2.0	USB 1.1
RS232	1 Full handshake + 1 Partial	1 Full handshake (TBD)
SMS (PDU and Text)	Yes	Yes
Analog Audio	Yes	Yes
Fax	Yes	TBD
Digital Audio	PCM Master/Slave interface	PCM Master/Slave interface
GPIO	8 (PU/PD 22k/100K)	8 (PU/PD TBD)
ADC	5 (2 internal/3 External)	1/2 External (TBD)
ETSI mandatory	3GPP TS 27.005 3GPP TS 27.007 3GPP TS 27.010	3GPP TS 27.005 3GPP TS 27.007
Firmware Upgrades	Yes	Yes
Configuration Upgrades	Yes	Yes
Logging/Debug	Yes	Yes
Charging	No	Yes (Special Model)

70 pins connector pin-outs comparison



Connector Pin #	GLite	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	VREF	VREF
28	GPIO1	GPIO1
29		RXD2_N
30	GPIO2	GPIO2
31		TXD2_N
32	GPIO3	GPIO3
33		RTS2_N
34	GPIO4	GPIO4
35		CTS2_N

Connector Pin #	GLite	G24
36	GPIO5	GPIO5
37	ADC1	ADC1
38	GPIO6	GPIO6
39	TXEN_N	TXEN_N
40	GPIO7	GPIO7
41	ANT_DET	ANT_DET
42	GPIO8	GPIO8
43	ADC2	ADC2
44	SIM_RST_N	SIM_RST_N
45	BATT_TEMP	UID
46	SIM_CLK	SIM_CLK
47		ADC3
48	SIM_VCC	SIM_VCC
49	GPRS	GPRS
50	SIMPD_N	SIMPD_N
51	IGN	IGN
52	SIM_DIO	SIM_DIO
53	ON_N	ON_N
54		LCD_CS
55	HDST_INT_N	HDST_INT_N
56		LCD_SD
57	HDST_MIC	HDST_MIC
58		LCD_CLK
59	AGND	AGND
60		LCD_RS
61	MIC	MIC
62		SPI_IRQ_N
63	ALRT_N	ALRT_N
64		SPI_DIN
65	ALRT_P	ALRT_P
66		SPI_CLK
67	SPKR_N	SPKR_N
68		SPI_DOUT
69	SPKR_P	SPKR_P
70		SPI_CS

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THANK YOU

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