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## Data Sheet

**PRODUCT:** CWMA101

**DESCRIPTION:** 802.16e WiMAX Half Mini Card

**VERSION:** 0.1

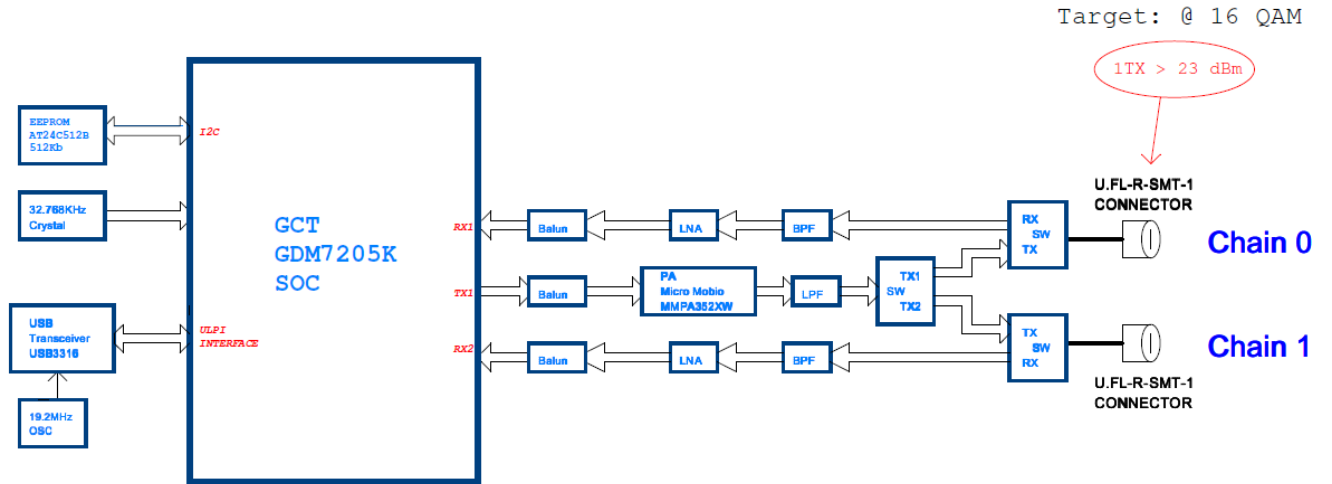
Approved Signatures	
	<p><b>Contact Person:</b></p>

1. INTRODUCTION

1.1 The purpose of this document is to define the product specification for a WiMAX 16e 2.3GHz ~ 2.7GHz HMC use GDM7205K SOC.

1.2 GDM7205K including GCT's direction conversion radio on-chip transceiver, provide a highly integrated, total solution for wireless multimedia communication over 802.16e WiMAX. It includes an 802.16e WiMAX access controller (MAC) and OFDMA baseband modems.

2. FUNCTION DIAGRAM



## 3. PIN CONFIGURATION

Pin Number	Signal	Pin Number	Signal
51	Reserved	52	+3.3Vaux
49	Reserved	50	GND
47	Reserved	48	NC
45	Reserved	46	NC
43	GND	44	LED_WLAN#
41	+3.3Vaux	42	LED_WWAN#
39	+3.3Vaux	40	GND
37	GND	38	USB_D+
35	GND	36	USB_D-
33	NC	34	GND
31	NC	32	NC
29	GND	30	NC
27	GND	28	NC
25	NC	26	GND
23	NC	24	+3.3Vaux
21	GND	22	PERST#
19	NC	20	W_DISABLE#
17	NC	18	GND
—	Mechanical Key	—	Mechanical Key
15	GND	16	NC
13	NC	14	USIM_RST#
11	NC	12	USIM_CLK
9	GND	10	USIM_DATA
7	CLKREQ#	8	USIM_PWR
5	WB_PRIORITY	6	NC
3	EXT_ACTIVE	4	GND
1	NC	2	3.3Vaux

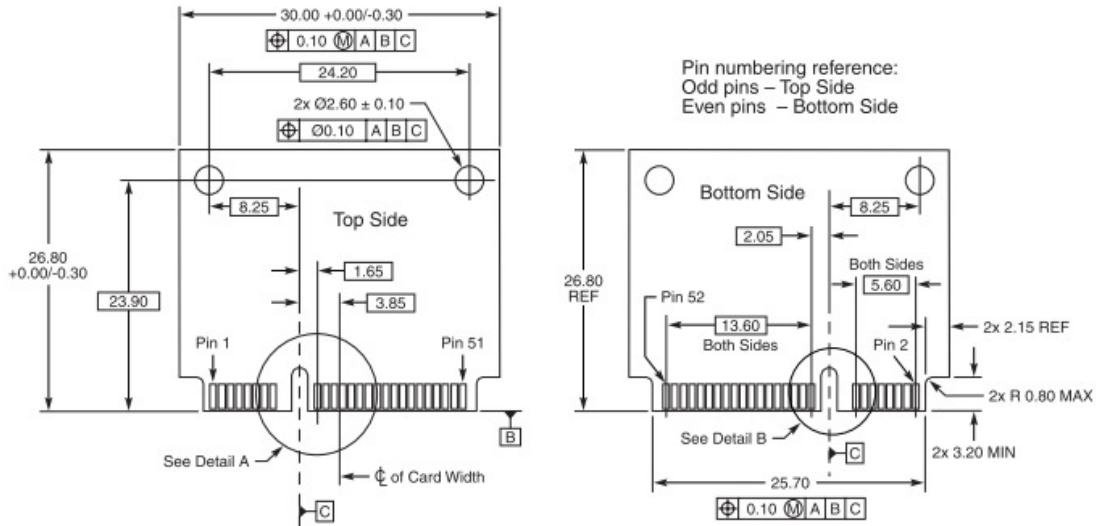
## 4. SPECIFICATION

ITEM	SPECIFICATION
WiMAX	
Standard	IEEE 802.16e, WiMAX wave2 compliant
Chipsets	2.5GHz : GCT GDM7205K SOC (MAC+RF+8MB SDRAM built-in)
Memory	EEPROM : 512Kbit (External) SDRAM : Nil (chipset built-in)
Air Interface	Scalable OFDMA
Modulation	DL : QPSK, QAM16, QAM64 UL : QPSK, QAM16
Frequency Band	2300 ~ 2400 MHz 2496 ~ 2690 MHz
Duplexing	TDD with a configurable DL/UL split
Frame Length	5ms
Channel Bandwidth	5, 10MHz
Cyclic Prefix	CP Length of 1/8
QoS Mechanism	UGS, rtPS, nrtPS, ErtPS and BE
MIMO (1TX/2RX)	STC Matrix A+ MRC in DL for two antennas STC Matrix B (MIMO 1X2 on DL)
Hardware	
Output power (Antenna ports)	23dBm +/- 1dBm
RX Sensitivity	-98dBm @ QPSK-1/2_CTC +/- 1dBm
Antenna	Nil
Power Management	Sleep, Idle & Active mode
Driver Support	Windows XP, Vista, 2000 Linux 2.6.x Macintosh 10.x
SECURITY	
Key Management	PKMv2
X.509 Support	Yes
Authentication	EAP-TLS, EAP-TTLS(MD5, MSCHAPv2)
Encryption	AES-CCM 128bits, 3DES-128bits
ENVIRONMENT	
Operating Temperature	-20°C to 45°C
Storage Temperature	-30°C to 85°C
Humidity (non-condensing)	10% ~ 85% typical
Humidity	5 ~ 95%
CONFORMANCE	
EMC	FCC CFR47 Part 15 Subpart B class B

	EN301 489-1/-4, EN55022, Class B (Emissions)
EMI	FCC 47CFR Part 27 subpart M
Safety	UL60950 EN60 950-1 EN50385
Interoperability	WiMAX Forum Wave2 compliant
Green Initiative	RoHS-compliant
Recycling	WEEE-compliant

5. ELECTROMECHANICAL SPECIFICATION

Half-Mini Card Size



Full-Mini Card Size

