
Datasheet

Matrix Electronica

MTX-miniPCle-CEFIRO Family

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MTX-miniPCIe-CEFIRO Family

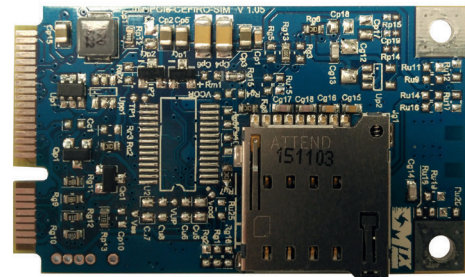
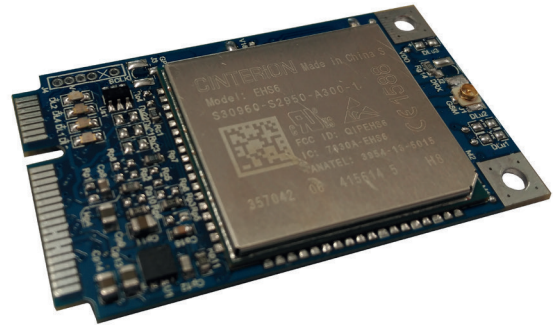
Programmable miniPCIe card with 4G, 3G, GPS, WLAN and Bluetooth

The MTX-miniPCIe-CEFIRO Family is a new line of advanced miniPCIe cards for the Internet of Things and M2M communications, providing an all-in-one solution enabling GSM voice, SMS, fax 4G and 3G (UMTS/HSPA) high speed data transmission with microSIM holder.

The MTX-miniPCIe-CEFIRO cards are Java J2ME programmable and have a complete set of wireless interfaces shortening time to market and reducing costs:

- Cellular communications: 4G and 3G
- WLAN: 5GHz/2.4GHz (802.11 ac/ a/b/g/ n/d/e/h/i) Client and access point
- Bluetooth 4.0: v2.1 + low energy
- GPS receiver: allows tracking & location

Industrial features: they can be used in industrial applications due to its extended operating temperature range.



MAIN FEATURES



Java



2G
3G/4G
4G
connectivity



GPS



USB 2.0



Bluetooth 4.0



WiFi client &
access point



Multi OS
support



Industrial
temperature



Micro SIM
holder

- 🌡️ Temperature range: -30° to +85°C
- 📏 Dimensions: 51x30x5.3mm
- 🐦 Weight: <100gr






Preliminary Datasheet. Subject to changes | 2017/09
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● HARDWARE FEATURES ●

	MTX-miniPCIe-CEFIRO 4G	MTX-miniPCIe-CEFIRO 3G
	Penta-Band LTE: Bands 1, 3, 8, 20, 28* (700*, 800, 900, 1800, 2100 MHz), Dual-Band GSM 900 & 1800 MHz	UMTS/HSPA+: five band (800, 850, 900, 1900, 2100MHz), GSM/GPRS/EDGE quad band (850, 900, 1800, 1900MHz)
	LTE Cat.1 (3GPP Release 9): DL 10.2Mbps, UL 5.2Mbps	
		HSPA (3GPP release 6, 7): DL 7.2Mbps, UL 5.7Mbps; HSDPA Cat.8/HSUPA Cat.6 data rates; compressed mode (CM) according to 3GPP TS25.212 UMTS (3GPP release 4): PS data rate 384kbps DL, UL 384kbps; CS data rate 64kbps DL, UL 64kbps
	GPRS Class 12: DL max. 85.6 kbps, UL max 85.6 kbps	GPRS: GPRS class 12; mobile station class B; PBCCH support; coding schemes CS 1-4 EGPRS: multislot class 12; EDGE E2 power class for 8PSK
		CSD data transmission: up to 9.6kbps; V.110; non-transparent mode
	SMS text and PDU mode	SMS text and PDU mode






General Features

-  SIM application toolkit, 3GPP release 99
-  Control via AT commands
-  TCP/IP stacks access via AT commands
-  Internet services: TCP, UDP, HTTP, FTP, SMTP, POP3
-  Fully compliant with PCI Express Mini Card
-  Micro SIM holder





Java Features

-  Oracle Java ME embedded 3.2
-  Compliant to CLDC 1.1 HI and IMP-NG standards
-  Capable of running multiple MIDlets in parallel with inter-MIDlet communication
-  Java standard APIs: JSR75 (FileConnection), JSR177 (CRYPTO), JSR280 (XML)
-  Accessible periphery for Java applications: IO pins, I2C, SPI interfaces, ADC/DAC, serial interfaces (API): ASC0, ASC1, USB
-  Memory space for Java applications: Flash File System: 8MB, RAM: 6MB, Just-in-Time (JIT) Compiler execution optimization

Special Features

-  USB interfaces support composite modes and Linux/Mac compliant mode
-  Firmware update via USB/RS232
-  Real Time Clock with alarm functionality
-  Multiplexer according 3GPP TS 27.010
-  RLS monitoring & informal network scan

Drivers

-  USB, MUX driver for Microsoft Windows XP, Vista, 7
-  USB, MUX driver for Microsoft Windows embedded handheld >=6.x
-  USB, MUX driver for Microsoft Windows embedded compact >=6.x
-  USBserial/CDC-ACM driver for Linux

Ordering Information

MTX-miniPCle-CEFIRO-3000-Usim	199803003
MTX-miniPCle-CEFIRO-3011	199803004
MTX-miniPCle-CEFIRO-3100	199803005
MTX-miniPCle-CEFIRO-3100-Usim	199803011
MTX-miniPCle-CEFIRO-3111	199803006
MTX-miniPCle-CEFIRO-3122	199803002
MTX-miniPCle-CEFIRO-3022	199803012
MTX-miniPCle-CEFIRO-3031	199803014
MTX-miniPCle-CEFIRO-3131	199803017
MTX-miniPCle-CEFIRO-3133	199803018
MTX-miniPCle-CEFIRO-4000	199803010
MTX-miniPCle-CEFIRO-4011	199803019
MTX-miniPCle-CEFIRO-4030	199803020

FEATURES BY MODEL

MTX-miniPCle-CEFIRO

	3000	3011	3022	3030	3031	3033	3100	3111	3122	3130	3131	3133	4000	4011	4030
GSM CSD	X	X	X	X	X	X	X	X	X	X	X	X			
2G (GPRS EDGE)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3G (UMTS HSPA)	X	X	X	X	X	X	X	X	X	X	X	X			
4G (LTE Cat.1)													X	X	X
JAVA (embedded J2ME)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Micro SIM holder	X						X						X		
GPS receiver							X	X	X	X	X	X			
WiFi 2.4GHz		x1	x2		x1			x1	x2		x1			x1	
Bluetooth 4.0 + low energy		x1	x2		x1			x1	x2		x1			x1	
WiFi 5GHz/2.4GHz				x1	x1	x2				x1	x1	x2			x1

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