



CooVox UMTS 3G Module



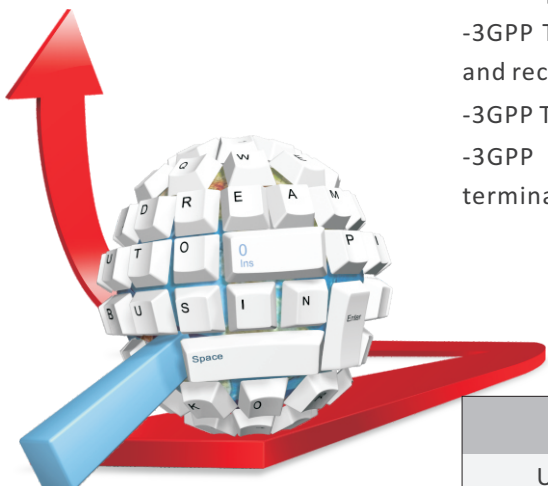
1UM is a Mini PCI Express Card with HSUPA functionality which supports for multimode operation - UMTS850(900)/1900/2100, GSM/GPRS/EDGE 850/900/1800/1900. It can provide WCDMA, GSM/GPRS, EDGE(EGPRS)and HSUPA high-speed data services in mobile environments.

Note: UMTS850 and UMTS900 cannot be supported simultaneously.



Execute Standards

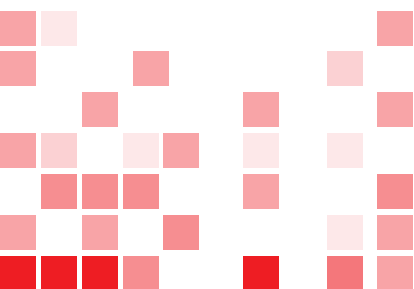
- PCI Express Mini Card Electromechanical Specification Revision 1.2 / October26 2007
- 3GPP TS 34.121 User Equipment (UE) conformance specification; Radio transmission and reception (FDD)
- 3GPP TS 05.05
- 3GPP TS 34.124 Electromagnetic compatibility (EMC) requirements for Mobile terminals and ancillary equipment



Technical Specifications

Working Bands

	Uplink	Downlink
UMTS850	824 MHz-849MHz	869 MHz-894MHz
UMTS900	880 MHz-915MHz	925 MHz-960MHz
UMTS1900	1850 MHz-1910MHz	1930 MHz-1990MHz
UMTS2100	1920 MHz-1980MHz	2110 MHz-2170MHz
GSM850	824 MHz-849MHz	869 MHz-894MHz
GSM900	890 MHz-915MHz	935 MHz-960MHz
GSM1800	1710 MHz-1785MHz	1805 MHz-1880MHz
GSM1900	1850 MHz-1910MHz	1930 MHz-1990MHz



Operation Features

- WCDMA PS data rate : 384kbps DL/384kbps UL
- WCDMA CS data rate : 64kbps DL/64kbps UL
- HSDPA supports a maximum downlink data rate of 7.2Mbps
- HSUPA supports a maximum uplink data rate of 5.76Mbps
- EDGE CLASS12/GPRS CLASS12 PS are supported

Hardware Technical Parameters

Item	Specifications	Remarks
Interface type	PCI Express Mini Card	NOTE1
Protocol	HSUPA/HSDPA/UMTS/EDGE/GPRS/GSM	
Frequency	HSUPA/HSDPA/UMTS2100/1900/850(900)MHz; EDGE/GPRS/GSM1900/1800/900/850MHz	
Transmission	HSDPA 7.2Mbps DL	
	HSUPA 5.76Mbps UL	
Power	Average : 1.20W	NOTE2
	Maximum : 2.2W	
USIM&SIM	Standard 6 PIN Interface	
Antenna	Integrated with the notebook	
Rx Diversity	Support (2100/1900/850 (900) MHz)	
Equalization	Support	
Storage temperature	-20°C ~ +85°C	
Operation temperature	-10°C ~ +70°C	
System Required	Windows 2K/XP, Vista	
Dimensions	About 51mm * 30mm * 4.7mm	NOTE3
Weight	About 12g	
Certification & Approval	CE certification, ROHS	
Chipset	MSM6290+PM6658+RTR6285	

Notes:

- The interface type does accord with <PCI Express Mini Card Electromechanical Specification Revision 1.2, October 26 2007>.
- The average power dissipation of MF210 is tested when Tx power is 15dBm.
- Type F2 is Full-Mini with bottom-side keep outs, and is compatible with type F1.