



Specification of CM520-65F

- ◆ The high-end vehicle-mounted 3G/4G+WiFi router (or 3G/4G gateway) is a device with 1 gigabit WAN port and 4 gigabit LAN ports, and supports both WiFi LAN (802.11a/b/g/n) communication and Internet and 3G/4G wireless communication functions. The device supports multiple VPNs and has the security and authentication functions of WiFi LAN transmission. It can realize the seamless connection between wireless LAN and wireless wan and provide users with high-speed, safe and reliable mobile network services.
- ◆ The whole machine is designed at the industrial level, and supports the power supply of car power extraction and 110V (customized) power supply. The System is equipped with the watch-dog WDT protection. In addition, the SWP (System Watch Protect) is loaded. The product has the patent technology of maintaining the stability of the system, ensuring the equipment is always online, after strict design, testing and many years of practical application, the product performance is stable and reliable.

Model NO.	CM520-65F	
Cellular Parameters		
Network	LTE-FDD/HSPA+/UMTS/HSDPA/HSUPA/WCDMA/EDGE/GSM	
Standards and Frequency Bands	EGSM 900 Power Class 4 2 W, 33 dBm	
	GSM 1800 / 1900 Power Class 1 1 W, 30 dBm	
	EDGE Power Class for 900MHz Class E21 27 dBm, 0.5 W	
	EDGE Power Class for 1800 / 1900MHz Class E21 26 dBm, 0.4 W	
	Others. (It depends on area and country.)	
Coding Scheme	HSPA+/ DC-HSPA+ / GPRS / EDGE	
Communication Bandwidth	100 Mbps DL within 20 MHz bandwidth (Peak DL data rate in 10 MHz bandwidth: 70 Mbps (approx.) for Cat 3 device)	
	50 Mbps UL within 20 MHz bandwidth	
Transmit Power	<24dBm	
Receiver Sensitivity	<-109dBm	
Advanced Features		
Working Mode	PPPoE / SIM(support APN/VPDN) / SWITCH / DHCP Client / Wi-Fi Client	
Wi-Fi	Mode	2.4G WiFi
	Encryption	WEP / WPA-PSK(TKIP/AES) / WPA2-PSK(TKIP/AES)
DDNS	Dyndns / 88ip / Oray	
Filter	IP Filter / Application Filter(media/music/URL)	
Firmware Upgrade	Local / Remote	
VPN	PPTP / IPSEC / L2TP / N2N / OPENVPN	
Protocol	TCP/IP UDP ICMP HTTP SMTP SSH SCP	
SSD	Optional. 64G / 128G / 256G / 512G	
VLAN	√	
NAT	√	
DMZ	√	
QoS	√	
Flow Control	√	
Remote Config	√	
Restart Timer	√	
Firewall	√	
Web Config	√	
System Log	√	
Console	√	
Vehicle Mounted	√	
AD Playing	√	
Switch Time Zone	√	
Hardware System		
CPU	Industrial high performance embedded processing CPU, main frequency is 1.4GHz(dual-core), sub frequency is 733MHz(dual-core)	
MMU	CPU with MMU memory management unit, can prevent memory overflow	
FLASH	NOR FLASH 32MB	
DDR3	32bit DDR3 512MB-2GB	

Operation System			
OS	OpenWRT		
Capacity Parameters			
Table Capacity	MAC Table	1000	
	ARP Table	1000	
	Routing Table	256	
	NAT Session Number	20000	
Service Capacity	Maximum number of wireless subscribers	100(each frequency point)	
	Concurrent users	254	
	Routing forwarding (no NAT enabled)	90Mbps	
	Routing forwarding (NAT enabled)	70Mbps	
Interface Parameters			
WAN	1 10/100M adaptive WAN port. Built-in isolation, support Auto MDI/MDIX, support PPPoE		
LAN	4 10/100M adaptive LAN ports. Support Auto MDI/MDIX, built-in 1.5kv electromagnetic isolation protection		
Serial Port	1 RS232		
	Data Bit	7/8	
	Stop Bit	1/2	
	Parity Bit	NONE / ODD / EVEN	
	Baud Rate	300bps ~ 115200bps	
	Flow Control	NONE Flow Control	
I/O	(Optional) Support 3 I/O ports. It can be applied to vehicle detection and control.		
Indicator Light	Power	On	Normal power supply
		Off	No power supply
	SYS	Blink	Program is running
		Off	No program is running
	Online	On	The device is online
		Off	The device is offline
	Signal	Both indicators are off	The signal value of SIM card 1 is less than 12
Only one indicator is on		The signal value of SIM Card 1 is between 12 and 25	
Both indicators are on		The signal value of SIM Card 1 is more than 25	
Antenna	Standard SMA female interface, 50 Ohm. An extension cord of 1M/3M/5M/10M can be selected		
UIM	1.8V/3V/5V standard putter user card interface, built-in 15KV ESD protection.		
Power	Standard 3-core locomotive power outlet		
Reset Button	Reset button to restore factory settings		
Power Supply			
Supply Voltage	DC6V-32V. Over-voltage protection, power reverse protection		
Standard Power Supply	DC9V/1500mA		
Communication Current	Average Communication Current: 390mA@+9VDC		
	Communicating	Instantaneous Peak Current: 1.0A@+9VDC	
Standby Current	<56mA@+9VDC		

Physical Features	
Shell	Metal shell: metal case, anti-radiation, anti-interference; shell and system security isolation, lightning protection design; meet the power requirements of safety regulations; protection rating IP31; particularly suit for harsh industrial control environments.
Product Dimension	228mm*35mm*144mm(Antenna and fixer are not included)
Weight	1.02kg
Wi-Fi Parameters	
Module	802.11b/g/n 3×3 MIMO(450Mbps)
Operating Frequency	802.11b/g/n 2.412 ~ 2.472GHz, 13 channels
Output Power	23dBm
MTBF	≥ 100,000 hours
Number of Users	Single Band 150
Security Parameters	64/128bits WEP WPA-PSK/WPA2-PSK TKIP/CCMP/AES
Transmission Distance	Outdoor coverage can reach 150 meters(with an open environment)
GPS Parameters	
Module	Industrial grade GPS/ Beidou module is adopted
Receiver Type	Receive GPS, 50 channels, L1 frequency, 1.023 MHz chip speed, C/A code 1.023 MHz chip speed; Support SBAS: WAAS and EGNOS, MSAS Compatible with GALILEO
Location Accuracy	Position: 2.5m CPE SBAS: 2.0m CPE
Speed Accuracy	< 0.01 m/s(high speed) < 0.01° (heading), 50% (@ 30 m/s)
Timing Accuracy	1 ms to synchronize GPS time
Capture Time	Cold start: 27S; Auxiliary start :<3 seconds; Hot start: <1 second
Data Format	NMEA-1083, SiRD Binary
Input Information	NMEA, SiRF Binary. Height/Position/Date/Time
Output Information	NMEA-0183,SiRF Binary. GGA GSA GSV RMC VTG GLL
Pulse Output	1pps. ±1us
Navigation Data Update Speed	5Hz
Sensitivity	Tracking: - 162dbm; Cold start: -147dbm; Hot start: -156dbm
Other Parameters	
Operating Temperature	-25° C ~ +65° C
Extended Operating Temperature	-35° C ~ +75° C
Storage Temperature	-40° C ~ +85° C
Operating Humidity	5% ~ 95%(No condensation)
Storage Humidity	0% ~ 100%(No condensation)