

CG524

DIBSYS

DOCSIS 3.0 24 x 8 Cable Modem with 4 GbE and Dual WiFi



DOCSIS system include CMTS (Headend cable network) and CM (user end). The main function of DOCSIS Cable Modem system is transparently transmitting IP packets between the front end and the user end.

The **CG524** series are designed with state-of-the-art DOCSIS/EuroDOCSIS 3.0 24*8 channel bonding technology, as well as backward compatible to all existing DOCSIS 2.0/1.1/1.0 head-end equipment under Multiple Service Operator networks. DIBSYS cable modem provides a cost-effective solution which delivers high-speed and bi-directional data services.

The **CG524** series product cover from low-end four Giga Ethernet port model to high-end with integrated 2.4 GHz and 5 GHz Dual Band Wi-Fi feature, DIBSYS offer a one-stop solution to satisfy customers all kinds of demands. It not only play as cable modem feature, some models with built in Wi-Fi Router function are even capable to work as Residential Gateway in your home or small office and offer excellent bandwidth to all your Internet-capable devices.

Features

- DOCSIS/EURODOCSIS 3.0 Standard Compliant, compatible with Euro Docsis2.0/1.0/1.1 standard;
- High performance 802.11n 2.4GHz and 802.11ac 5GHz Concurrently
- Broadcom 3384 as main chipset;
- BPI/BPI+ supported
- Software upgrade by HFC network;
- Support connected up to 128 CPE devices;
- Supports up to 24 downstream and 8 upstream channels bonding;
- Full Band Capture (FBC), DS frequency shouldn't have to be adjacent;
- Hardware packet processing accelerator, low CPU consuming, high packet throughput;
- High speed Internet via 4 Ports Giga Ethernet Connector with auto-negotiation MDIX functions;
- SNMP v1/2C/3 and TR069
- Supports baseline privacy encryption (BPI/BPI+)
- USB 2.0 Embedded Host port (Optional)

TECHNICAL SPECIFICATIONS

Hardware Interface

RF Interface	F type female 75ohm connector port
Eth Interface	RJ-45 connector; 4 Ports Giga Ethernet port
Button	Software Reset Button for CM; One WPS Button
WPS Button	WPS for WiFi
DC Jack	+12V IN
USB	USB 2.0 Host Connector (Optional)

Docsis Standard Support

DOCSIS/EURO-DOCSIS 3.0 Standard Compliant, compatible with Euro Docsis2.0/1.0/1.1 standard

Downstream /Receiver

Demodulation	QAM 64/256
Frequency Range	88-1002 MHz
Bonded Channels	Up to 16 Channel Bonding
Bandwidth	8MHz
Data Rate	Up to 1200Mbps by 24 D/S Channel Bonding
Return Loss	<-6 dB for 88 to 1002MHz
Input Impedance	75 OHM
Receiving Level Range	American Docsis : -15dBmV to +15dBmV Euro Docsis : -17 to +13dBmV (64QAM) -13 to +17dBmV (256QAM)

Upstream/Transmitter

Bonded Channels	Up to 8 Channel Bonding
Modulation Type	
TDMA	QPSK,8QAM,16QAM,32QAM,64QAM
S-CDMA	QPSK,8QAM,16QAM,32QAM,64QAM,128QAM
Frequency Range	5 to 65MHz
Data Rate	Up to 216 Mbps by 8 U/S Channel Bonding
RF Output Level	
TDMA (32/64 QAM)	+17 ~ +57dBmV
TDMA (8/16 QAM)	+17 ~ +58dBmV
TDMA (QPSK)	+17 ~ +61dBmV
S-CDMA	+17 ~ +56dBmV
TX Frequency Error	<+/-15 ppm
Return Loss	<= -6 dB for 5 to 65MHz
Input Impedance	75 OHM

WiFi (11n+11ac Concurrent)

2.4G 2x2	
Wireless Standard	IEEE 802.11 b/g/n
Chipset	BCM43217TKMLG
Frequency	2.4 GHz and 5 GHz Dual Band. 2.412 ~ 2.484GHz 5.15 ~ 5.35 GHz; 5.46 ~ 5.72 GHz; 5.725 ~ 5.825 GHz
Signal Rate	300Mbps (11n); 867Mbps (11ac)
Encryption	WEP, WPA/WPA-PSK, WPA2/WPA2-PSK
Max No. of SSID	8
Transmission Power	>+15dBm @ 11n, 20M, MCS7
Receiving Sensitivity	ANT0/1:11Mbps -86dBm@8%; 54Mbps -73dBm@10%; 130Mbps -69dBm@10%
Antenna	Internal Antenna x2

5G 3x3

Wireless Standard	IEEE 802.11ac/n/a, 802.3, 802.3u
Chipset	BCM4352KMLG
Frequency Band	4.9~5.845 GHz ISM Band
Data Rate	6,9,12,24,36,48,54 and maximum of 1300 Mbps
Receiver Sensitivity	
	11a(54Mbps) ≤ -72dBm @10%, 11n-20M(mcs7) ≤ -69 dBm @10% 11n-40M(mcs7) ≤ -67dBm @10% 11ac-20M(mcs7) ≤ -68dBm @10% 11ac-40M(mcs7) ≤ -64dBm @10% 11ac-80M(mcs7) ≤ -62dBm @10%
TX power Level	
	11a(54Mbps) 15±2 dBm 11n-20M(mcs7) 15±2 dBm 11n-40M(mcs7) 15±2 dBm 11ac-20M(mcs7) 15±2 dBm 11ac-40M(mcs7) 15±2 dBm 11ac-80M(mcs7) 14±2 dBm
Spread Spectrum	IEEE802.11ac/n/a: OFDM (Orthogonal Frequency Division Multiplexing)
Security	WEP, TKIP, AES, WPA, WPA2
Antenna	Internal Antenna x3

Networking

Network protocol	IP /TCP /UDP /ARP/ICMP /DHCP /TFTP /SNMP /HTTP /TR069 /VPN (L2/ L3) /DNS / DHCP server / RIP I&II
Routing	DNS / DHCP server / RIP I&II
Internet Sharing	NAT / NAPT / DHCP server / DNS
SNMP version	SNMP v1/v2/v3
DHCP server	Built-in DHCP server to distribute IP address to CPE connected to Cable Modem through Eth port and WiFi
DHCP client	Cable Modem automatically gets IP & DNS server address from MSO DHCP server

Environment

Operation temperature	-10 to 45°C
Storage temperature	-20 ~ 55°C
Operating Humidity	95% non - condensing
Dimensions (L x W x H)	225mm x 235mm x 45mm
Power Consumption	<36W (Max. System Loading)