

# Com.X20 Gateway



## DATA SHEET

### Integrated Access Gateway

**Integrated Access Device: Firewall & Router**

**VoIP Gateway: SIP, ISDN, PSTN**

**Access technologies: IP, Telco**

**Upgradable to 3CX PBX package**



### Feature highlights

- Packaging: Multiple 1U \* 19" rack mount
- SIP trunks: 512 simultaneous G.729a CODEC's
- WAN ports:
  - 8 Gigabit Ethernet
- LAN ports:
  - 8 Gigabit Ethernet, 2 \* USB3.0
- Port Expansion: Connect multiple Comma iTA units via Ethernet LAN
- Telephony port hardware per Comma iTA:
  - 24 Analogue (FXS or FXO)
  - 4 or 8 Basic Rate ISDN (TE or NT mode)
  - 2 or 4 Primary Rate ISDN (TE or NT mode)
- Network Protocols and Services: PPP, PPPoE, HDLC, IPv4, DNS, VPN, NTP, SSH, HTTP, VLAN
- Routing: Static, NAT, NAT traversal, Port Forwarding, SIP ALG
- Firewall: Policies, Access Control Lists, Inbound/Outbound Filters, DMZ
- SIP Gateway features: B2B User Agent, Call Recording, Announcements, T.38 fax, register 2 local extensions
- QoS:
  - Network Class of Service: DSCP and 802.1P
  - "ViBE" integration, Voipex (UK)
- Call Recording "Call Manager": 250,000 minutes on device
- Web-based GUI: User friendly, install and configuration "wizard" with configuration backup & restore
- Remote Management: Nagios reporting, Backup & Restore
- CE, FCC, ROHS

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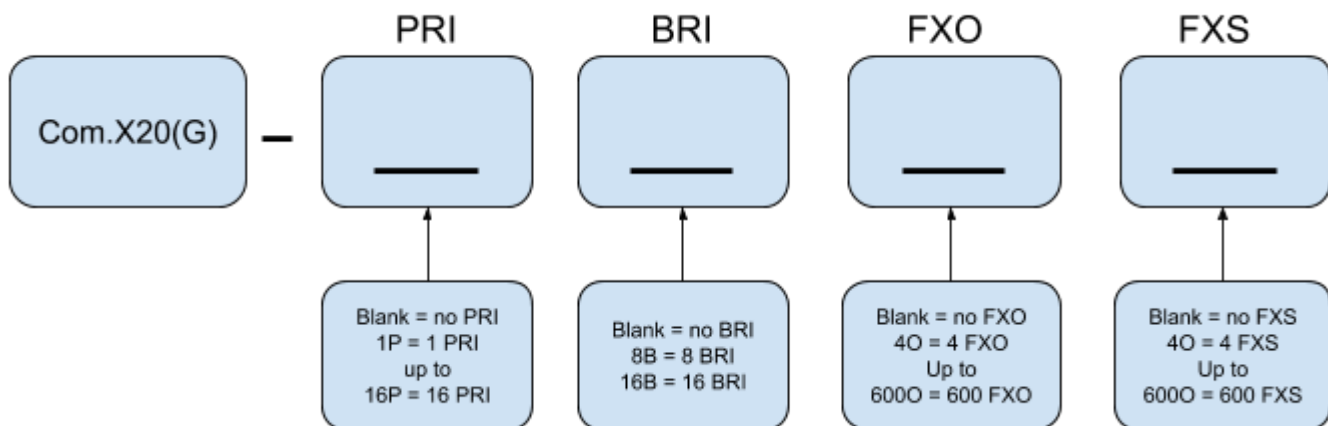


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### Ordering Information

#### Part Number Generator

The Com.X20 is modular, with the ordering code made up as follows. Not all combinations are possible.



#### Note:

Com.X20(G) SIP Gateway feature set support with support for PBX license upgrade

Installing Comma iTA telephony adapter units, the Com.X20 platform will support a scalable number of PRI, BRI, FXO and FXS ports

#### Part number examples (many other build options are available):

<b>Com.X20(G)-SX</b>	SIP Gateway, 8 Gigabit Ethernet
<b>Com.X20(G)-16B</b>	SIP Gateway, 8 Gigabit Ethernet, 16 BRI (via 2 * Comma iTA-8B units)
<b>Com.X20(G)-8P</b>	SIP Gateway, 8 Gigabit Ethernet, 8 PRI (via 2 * Comma iTA-4P units)
<b>Com.X20(G)-12P</b>	SIP Gateway, 8 Gigabit Ethernet, 12 PRI (via 3 * Comma iTA-4P units)
<b>Com.X20(G)-120O</b>	SIP Gateway, 8 Gigabit Ethernet, 120 FXO (via 5 * Comma iTA-24O units)

# Com.X20 Gateway



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### Technical Specifications

#### Host Processing Platform

CPU	Intel Skylake i7-7700 (7 <sup>th</sup> gen, 4 cores / 8 threads, 3.6GHz / 4.2GHz)
Memory	8GB DDR3
Storage	128GB SSD (SATA3)
I/O Ports	8 x GbE 2 x USB 3.0, 1 x RS-232 (RJ-45)
Operating System	Ubuntu Linux 16.0.4 LTS

#### Telephony Interfaces (as provided by additional Comma iTA units)

	Primary Rate	Basic Rate	Analog (FXS)	Analog (FXO)
Voice Ports	30, 60, 90, 120, ... (E1)	8, 16, ...	4, 8, 16 ... 256	4, 8, 16 ... 256
Physical	RJ-45	4 / 8 x RJ-45	RJ-11	RJ-11
Electrical	E1/G.703 120Ω T1/G.703 100Ω	S/T TE or S/T NT (software selection)	Zone dependent, software programmable DC and AC characteristics. Balanced sinusoidal ringing (3 REN)	Zone dependent, software programmable impedance matching.
Protection	Power cross Inter-building	-	Power cross Inter-building	Power cross Inter-building
Conformance	TBR 4	TBR 3		Country-dependent

#### Voice Features

Echo Cancellation	Hardware based G.165 type adaptive echo cancellation per channel Up to 64 channels at 16 ms or 32 ms Up to 32 channels at 64 ms			
Hardware CODECs	-	-	G.711 A-law or $\mu$ -law	G.711 A-law or $\mu$ -law
Software CODECs	G.711, G.726, GSM, G.729A			
Fax and Modem	Packet-network synchronization and G.711 provide transparent fax/modem support			

#### Signaling

Signaling System	ISDN PRI - ETSI ISDN PRI - NI-2 E1-CAS T1-CAS	ISDN BRI - ETSI ISDN BRI - NI-2	Loop-start DTMF	Loop-start DTMF
Other Features	Configurable network clock synchronization	Configurable network clock synchronization	Caller ID transmission Hook flash Distinctive ring	Caller ID reception

#### Packet Interfaces

VoIP	SIP + RTP
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#### Administration

Management	Web based GUI, including platform backup and restore
Logging	Log (with configurable levels)
Field upgrade	Application and firmware remote upgrade from hosted repository
Call Detail Records	MySQL database for CDR

#### Physical Characteristics

Power	220V, 50Hz (200W)
Environmental	0°C - 40°C
Dimensions	437mm x 287mm x 43mm
Mounting	Desktop, rack mount (mounting kit supplied)

#### Certification (CE, FCC, ROHS)

EMC/EMI	CE & FCC
Safety	ROHS, RtP

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Refer to Com.X Administrators Guide for feature set specification, available at:  
<http://farsouthnet.com/support/manuals/>

## Gateway Feature Set

The short list of features provided below is common across all Com.X(G) platforms:

SIP Gateway Features		
<ul style="list-style-type: none"><li>Remote Management:<ul style="list-style-type: none"><li>Monitoring &amp; Diagnostics</li><li>Backup and restore</li><li>Call flow analysis</li></ul></li></ul>	<ul style="list-style-type: none"><li>Networking:<ul style="list-style-type: none"><li>DHCP, DNS, NTP</li><li>HTTP, VPN, SSH, VLAN</li></ul></li></ul>	<ul style="list-style-type: none"><li>Security:<ul style="list-style-type: none"><li>Firewall policy</li><li>Access Control lists</li><li>In/Outbound filter</li><li>DMZ</li></ul></li></ul>
<ul style="list-style-type: none"><li>Fail2Ban security module</li></ul>	<ul style="list-style-type: none"><li>Routing: Static, NAT, Forwarding, SIP ALG</li></ul>	Call Recording Manager: <b>30,000min</b>
<ul style="list-style-type: none"><li>B2BUA mode</li></ul>	<ul style="list-style-type: none"><li>SIP / (TCP or UDP)</li></ul>	<ul style="list-style-type: none"><li>TOS/COS: DSCP, 802.1 Ip</li></ul>
<ul style="list-style-type: none"><li>SIP proxy registration</li></ul>	<ul style="list-style-type: none"><li>Trunk to Trunk routing</li></ul>	<ul style="list-style-type: none"><li>QoS: ViBE management</li></ul>
<ul style="list-style-type: none"><li>Register 2 phones (emergency calls)</li></ul>	<ul style="list-style-type: none"><li>Outbound route configuration (LCR) and multi-level trunk fail-over</li></ul>	<ul style="list-style-type: none"><li>Atmos compliant "Call Recording" from Call Cabinet</li></ul>
<ul style="list-style-type: none"><li>T.38 fax (relay)</li></ul>	<ul style="list-style-type: none"><li>Budget Trunk Router (minutes/month)</li></ul>	<ul style="list-style-type: none"><li></li></ul>