

HG 1110 series HG 1310 series

- VoIP PSTN/ISDN telephony
- Up to 8 separate WLANs
- Fixed-Mobile Convergence
- Full LAN-side routing
- ADSL or Ethernet access
- IMS enabled



One gateway to handle now and future services. The industry's most advanced platform for multi-play services in a PSTN or ISDN home. Connects to your ADSL network, Fiber/Ethernet adapter or the Ethernet port of an ADSL or Cable modem.



Tilgin solutions

Today's full-service provider requires a lot more than a chipset and a modem. That's the difference between a "box" and a solution. And that's the difference Tilgin makes - integrating those electronics with the way you do business.

You get superior voice quality, innovative features and cutting-edge hardware but you also get Tilgin's provider application layer - the part that enables you to turn it into business:

- Easily upgrade feature sets/options
- Separate and control a feature set as a granular hierarchy of service levels
- Shape each stream independently for glitch-free delivery that reduces help-desk calls.
- Auto-upgrade customers to new service levels with a simple download.

Your subscribers always enjoy the latest of what the industry has to offer and you add new revenues without adding new start-up costs.

That's the kind of service that keeps your subscribers onboard. And that's a good example of the kind of value Tilgin adds to keep your revenues *AND YOUR MARGINS* expanding.

Tilgin gateway solutions give you separate control of the services delivered to each LAN port and the devices connected to them. That means you can include a full range of home device functions as separated service offers. Examples are multiple IPTVs, wireless home surveillance, fixed/mobile telephony and more.

And with 4 Ethernet ports plus up to 8 remotely controlled WLANs, you have the headroom to expand your service portfolio well into the future.

PBX

Tilgin gateway solutions extend PBX functions to SIP phones as well as other eventual SIP home devices

Multiple remotely managed WLANs

Tilgin wireless support includes multiple SSID networks that are remotely managed and fully separable onto different WAN connections - a powerfully engineered platform for delivering separately controlled wireless service offers.

Fixed-mobile convergence (FMC)

Gateway routing based on SSIDs enables Wi-Fi communications between separate home WLANs and allows enabled cell phones to automatically engage the local Wi-Fi network upon entering the home.

High definition voice

Options include codecs that support devices enabled for wideband voice. You can offer subscribers a service level upgrade to voice clarity that beats even toll-quality telephones.

Home networking support features

- High speed routing (up to 400 Mb/s)
- Stream to multiple IPTVs (wire-speed switch)
- RTSP proxy
- IGMP snooping

Remote management options

Device registration, activation, service management, diagnostics and troubleshooting are controlled either by Tilgin's auto-configuration server or from any other TR-069 compliant ACS.

Tilgin gateways support IMS-based services

Key functionality is via the IMS Gateway Client powering analogue devices/services such as telephony and fax, and via the IMS Proxy mediating functionality between the LAN and WAN.

Tilgin AB

Corporate Headquarters
Box 1240
SE-164 28 Kista, Sweden
Tel +46 8 572 386 00
E-mail info@tilgin.com

North America
1818 Westlake Avenue North
Suite 330
Seattle, WA 98109, USA
Tel +1 425 651 2006
E-mail info@tilgin.com

www.tilgin.com

The Tilgin logo, featuring the word 'tilgin' in a lowercase, orange, sans-serif font.

Technical Specifications

Hardware	WAN		VoIP		Home networking										
	Eth	ADSL, 2, 2+	PSTN ports	ISDN ports	Eth ports	USB ports	FMC	IGMP snoop	RTSP proxy	PBX	Routing	Switching	FW	WLAN	
														SSIDs	WPS
HG 1112	-	Annex A	2 FXS	-	4	1.1 Dev	Yes	Yes	Yes	Yes	Standard	Wire speed	NAT	8	SW
HG 1113	-	Annex B	2 FXS	-	4	1.1 Dev	Yes	Yes	Yes	Yes	Standard	Wire speed	NAT	8	SW
HG 1113i	-	Annex B	2 FXS	2 NT	4	1.1 Dev	Yes	Yes	Yes	Yes	Standard	Wire speed	NAT	8	SW
HG 1311	Yes	-	2 FXS	-	4	2.0 Host	Yes	Yes	-	Yes	Wire speed	Wire speed	NAT	8	HW
HG 1311i	Yes	-	2 FXS	2 NT	4	2.0 Host	Yes	Yes	-	Yes	Wire speed	Wire speed	NAT	8	HW

Network Interfaces

WAN Access Options

- 1 x 100/10 Base-Tx IEEE 802.3 full duplex, Auto neg., Auto MDI/MDI-X (RJ-45)
- ADSL, ADSL2, ADSL2+ (RJ-11)
 - Multi mode Standard ANSI T1.413 Issue 2
 - G.994.1 (G.hs) rev.3
 - G.992.1 Annex A (ADSL/POTS), B (ADSL/ISDN)
 - G.992.2 G.Lite
 - G.992.3 Annex I, J, A(ADSL2/ DELT), B(ADSL2), L(READSL2), M(profiles 1, 7, 9)
 - G.992.5 Annex A(ADSL2+/ DELT), B(DELT), M(profiles 1, 7, 9)
 - G.997.1 (G.Ploam)
 - External splitter

LAN Options

- 4x10/100 Base-TX IEEE 802.3 full duplex, Auto neg., Auto MDI/MDI-X (RJ-45)
- 1 USB 2.0 Host (drivers support Vista, Mac, Linux, Win XP and Win 2000)
- 1 USB 1.1 Device
- 1 WLAN port
 - 802.11b/g/g++ (11/54/ 108 Mbps wireless)
 - 802.11b/g auto-switch
 - Multiple Wi-Fi networks
 - External detachable antenna

Voice

- 2 FXS VoIP ports (RJ-11)
- 1 BRI to 2xISDN NT connector for ISDN fax, data and phones (RJ-45). Support max 8 connected.

Quality of Service (QoS)

- QoS according to HGI guidelines
- DSL Forum TR-059 architecture
- Queuing, rate limitation, fragmentation
- Classification DiffServ/ToS and 802.1p/q
- LAN side re-tagging/ LAN-to-LAN prioritizing
- 802.11e (WMM) QoS for Voice/video over WLAN

Telephony

Voice and fax

- 5 SIP clients
- 12 phone numbers
- T.38 fax- optional
- Unified Voice Mail - optional

Speech Codecs:

- GSM 06.10 (13 kbps)
- G.711 A-law & u-law (64 kbps, 56 kbps)
- G.722 wideband (32 kbps - 64 kbps)
- G.723.1 (5.3 kbps, 6.3 kbps) - optional
- G.729AB (8 kbps) - optional
- Variable packet lengths
- DTX, Voice Activity Detector, Comfort Noise
- Narrowband Adaptive Multi-Rate (AMR)

Supplementary services

- Advice of Charge (AOC) support (requires network)
- Anonymous call rejection
- Call Diversion Protection
- Call Forwarding Busy (CFB) ETS 300 199
- Call Forwarding No Reply (CFNR) ETS 300 201
- Call Forwarding Unconditional ETS 300 200
- Call Waiting (CW) ETS 300 056
- Calling Line ID Presentation (CLIP) ETS 300 089
- Calling Line ID Restriction (CLIR) ETS 300 090
- Country specific configurations, e.g. line impedance, levels, tones and supplementary service codes (PSTN)
- Explicit Call Transfer (ECT) ETS 300 367
- Fixed Destination Call (Hotline)
- ISDN Data services and G4 faxes
- Malicious Call Identification (MCID), ETS 300 128
- Message Waiting Indication (MWI) EN 300 650
- Multiple Subscriber Number (MSN) ETS 300 050
- Outgoing Call Barring Fixed EN 301 082
- Outgoing Call Barring User Ctrl EN 301 084
- Three-Party (3PTY) ETS 300 186
- US Mid Call service profiles (PSTN)

Security

- Tilgin Secure Provisioning (PKI/AES/CHAP)
- Enhanced policy-based SPI firewall
- URL Filter, Blocking log, Virtual Server, DMZ
- MAC address filtering
- VoIP endpoint authentication
- VPN (IPSec) pass-through
- WLAN:
 - WAP/PAP (WAP 164)
 - WEP 64/128/256-bit encryption
 - WPA, WPA2 (802.11i personal)
 - EAP-TLS
 - EAP-TTLS/MSCSHAPv2
 - PEAPv0/EAP-MSCHAPv2
 - PEAPv1/EAP-GTC
 - EAP-AKA

Additional specifications and certifications

- Functional LED indicators: Power, Status, WLAN, LAN A/B/C/D, Phones 1-2, ISDN NT
- ON/OFF switch and factory reset button
- Case prepared for wall mount
- External power adaptor 12V AC, 1.2A
- Operating temperature: 5~40°C, 40~105°F
- Storage temperature: -10~70°C, 15~160°F
- Operate humidity: 5%~ 95% (non-condensing)
- HxD xW = 38,9 x 165 x 281,8 mm Excl antenna
- Certifications: CE Mark, IEC 60950, EN 60950, 55022, 55024, 301 489-17, FCC part 15, part 68, CSA 950, UL1950
- ADSL: TR-67
- ISDN compliances: ITBR3

Management Options

- TR-069 CPE-WAN Management
- Proprietary Tilgin (RECON) management
- Access-controlled CPE web-based GUI configuration with role-based home admin
- Basic configuration via IVR/analog phone

**Vertriebs - und Servicepartner für
Deutschland
Niederlande und Österreich**

**Quante Netzwerke GmbH
Ahrensburger Str. 8
D-30659 Hannover**

www.quante-netzwerke.de

**Tel: +49 (0)511 / 74 01 92 - 0
Fax: +49 (0)511 / 74 01 92 - 100**