

# Tilgin HG350

## Ethernet Home Gateways

The Tilgin HG350 product family is a new generation of VoIP gateways. It is equipped with a legacy POTS port and a cordless base station using CAT-iq technology, ready to connect multiple cordless handsets. The solution also supports ULE, the newest smart home radio technology.



### HG350 highlights

- **Legacy POTS emulation**  
Perfect emulation of legacy POTS telephony
- **Smart home hub**  
ULE as smart home radio technology  
Enable smart home services
- **DECT / CAT-iq**  
DECT/CAT-iq based cordless telephony
- **GE WAN and GE LAN port**  
Wireline bridged throughput  
Gigabit bidirectional routing
- **HGA gateway software**  
Legacy SIP and IMS support  
SIP/TLS and TR-104 issue 2 support  
Full CAT-iq 2.0 feature set  
TR-069 management  
Fail safe provisioning  
Operator log following TR-157

The HG350 product family is a range of VoIP terminal adapters suitable for PSTN replacement as well as green field deployments.

In addition to the standard PSTN emulation via the built in FXS port, there is also an option for a built in DECT/CAT-iq/ULE base station. This allows subscribers to connect legacy GAP compatible DECT phones as well as modern CAT-iq phones to the unit. With the Tilgin HGA software, the FXS port as well as the up to 6 DECT/CAT-iq connected handsets can get unique VoIP phone numbers associated.

The HG354/5 with the built in DECT/CAT-iq base station also supports ULE, the evolution of the DECT/CAT-iq radio technology into the connected home segment. ULE has significant advantages with its dedicated frequency band and low power devices where the batteries last for years.

With a software update supporting ULE, the HG354/5 will turn into a smart home hub that can connect and manage hundreds of connected home devices.

The product family mainly targets the ATA and smart home HUB market, but the units are in fact full blown routers supporting up to gigabit bidirectional routing, with hardware acceleration for routing, firewall and NAT services.

With its gigabit WAN and LAN ports and the support for wireline throughput for all packet sizes in a bridge setup, the units can be connected in front of the router in the home without blocking the up to gigabit internet service. This setup avoids possible problems with letting the VoIP services pass through any routers or firewalls in the home.

# Tilgin HG351/4 VoIP terminal adapter

The HG350 product series combine legacy services with state of the art technology and new services enabled



## HG350 Model Configurations

| Model | Memory         |              | WAN                   | VoIP    |                     | LAN            |
|-------|----------------|--------------|-----------------------|---------|---------------------|----------------|
|       | Flash (MBytes) | RAM (Mbytes) | Copper Ethernet ports | PSTN    | DECT / CAT-iq / ULE | Ethernet ports |
| HG351 | 128            | 128          | 1 x GE                | 1 x FXS | -                   | 1 x GE         |
| HG354 | 128            | 128          | 1 x GE                | 1 x FXS | 1                   | 1 x GE         |
| HG355 | 128            | 128          | 1 x GE                | -       | 1                   | 1 x GE         |

The products offers up to 2000 Mbps routing utilized with a built-in router engine between WAN and LAN.  
The products support Line rate switching for all packet sizes between WAN and LAN.

|   |  |   |
|---|--|---|
| <b>WAN interface</b><br>10/100/1000 Base-Tx<br>Auto negotiation, Auto MDI/MDI-X<br>Connector: RJ-45                             | <b>Switch</b><br>2048 MAC address table entries<br>Full 4K width VLAN support<br>Support for up to 64 simultaneous active VLAN<br>32 CoS queues<br>Traffic classification based on ingress port, 802.1q, 802.1p, DSCP, MAC address, IP protocol, IPv4/IPv6 address, IP packet length, UDP/TCP ports. | <b>Green</b><br>The products are designed for CoC compliance.   |
| <b>LAN interface</b><br>10/100/1000 Base-Tx<br>Auto negotiation, Auto MDI/MDI-X<br>Connector: RJ-45                             | Stacked VLAN support<br>Ingress port and flow based policing<br>Programmable support for traffic monitoring<br>Support for jumbo frames  | <b>Regulatory Compliances</b><br>CE mark<br>WEEE<br>RoHS  |
| <b>Voice interface</b><br>Ring voltage: min 45 Vrms<br>Connector: RJ-11<br>REN, Ring Equivalency Number : 5<br>Voice interfaces | <b>LEDs and button</b><br>LEDs for Power, Internet, WAN, LAN, FXS, DECT<br>Button for handset pairing, power on/off , factory reset  | <b>Physical Specifications</b><br>Dimension 180x130x60<br>Weight: 0.255 kg<br>Operating temperature: 0-40C/ 32-104F<br>Non-operating temperature: -20-60C/ -4-140F<br>Operating humidity, RH, non-condensing: 10-90%<br>Non-operating humidity, RH, non-condensing: 5-95%<br>External Power Supply: In: 100-240VAC, Out: 12VDC 1A |
| <b>DECT/CAT-iq ULE (HG354)</b><br>CAT-iq: Versions 1.0, 2.0, 2.1<br>ULE support<br>1880-1900 MHz                                |  |   |

## Tilgin HG350 and Tilgin Home Application software



Tilgin Application Software is common for and integrated to all Tilgin Home Gateways. The application software can be easily upgraded from standard to premium features by normal auto-provisioning. For further details of HGA see separate datasheet at [www.tilginsolutions.com](http://www.tilginsolutions.com).

| Full matrix of Tilgin hardware and HGA Software and Software modules compliance |        |              |                |               |          |
|---|--------|--------------|----------------|---------------|----------|
|   | HGA5xx | CAT-iq voice | ULE smart home | Secure access | Open HGA |
| HG351   | √      | √            |                | √             | √        |
| HG354   | √      | √            | √              | √             | √        |
| HG355   | √      | √            | √              | √             | √        |