



HSL 2.75G Picocell

GSM/GPRS/EDGE

Picocells extend the coverage of a mobile network operator in commercial premises and other environments to improve the quality of the subscriber experience, deliver mobile services at lower cost and provide service to all GSM mobiles. The addition of picocell infrastructure to an existing network, or as part of a new network build, need not be a complicated process. The HSL 2.75G Picocell achieves this through simple deployment and management.

The HSL 2.75G Picocell is targeted for use by all GSM network operators, and is suited for use in commercial premises, including office and retail environments. With support for GSM, GPRS and EDGE the Picocell enables network operators to provide their subscribers with excellent quality voice and messaging but also fast mobile data.

The significance of 2G technology in mobile networks today means that operators need to continue to run their 2G network in addition to their 3G network in order to provide coverage where it is expected by subscribers. In terms of the subscriber perception of voice and messaging there

is no difference between 2G and 3G technologies. Also, when using EDGE acceptable mobile data rates can be achieved for popular applications such as email and web browsing.

Picocells using 2G technologies enable operators to provide service to both 2G and 3G subscribers. The HSL 2.75G Picocell is therefore not only able to provide service to, for example, all of the employees of an enterprise or customers in a retail environment, regardless of the mobile handset being used, but can also do so with an excellent quality of service.

The HSL 2.75G Picocell provides a secure GSM experience and conforms to 3GPP specifications in terms of security, services and operation. The Picocell has the capacity for up to 14 voice calls and SMS messaging to take place simultaneously. The Picocell is securely connected back into the mobile operator's own core network using IPsec, ensuring communications privacy between the Picocell and operator.



Datasheet

HSL 2.75G PICOCELL TECHNICAL SPECIFICATIONS

INTERFACES

GSM. Integrated radio base station module.

LAN. Ethernet: 100BaseT. IEEE 802.3u.

GSM

Based on 3GPP Rel 7.

Frequency band. GSM 1800 (1800). GSM 900 (900).

Macro network sync. GSM 1800 (1800). GSM 900 (900).

Tx. 1805-1880 MHz (1800). 925-960 MHz (900).

Rx. 1710-1785 MHz (1800). 880-915 MHz (900).

Number of timeslots. 8, of which 7 used for speech or data traffic and 1 for signaling.

Voice calls. 14 simultaneous.

Output power. Up to 200mW (23dBm)

Receiver sensitivity. -95 dBm.

Speech. FR, HR, AMR.

Data. GPRS CS1-4. EDGE MCS1-9.

Timing Advance. TA>0.

SECURITY

GSM. Air encryption A5/0, A5/1, A5/3 (planned).

WAN. IPsec tunnel termination for GSM and O&M traffic. IKEv1 support.

CONFIGURATION AND MANAGEMENT

3GPP O&M.

ANTENNAS

GSM. One antenna. Support for the GSM 1800 band (1800). Support for the GSM 900 band (900).

GPS. Connector for external antenna (position and XO compensation). Optional.

POWER SUPPLY

Power over Ethernet (PoE) IEEE802.3at

12VDC 2A.

VISUAL STATUS INDICATORS

Front side LED for power/LAN/activity.

Port LEDs for Ethernet LAN.

COMPLIANCE & REGULATORY APPROVALS (CE)†

EMC and radio spectrum standards.

EN 301 489-1 V1.5.1:2004

EN 301 489-8 V1.2.1:2003

EN 55022:2006 + A1:2007

EN 301 502 V8.1.2:2001

Safety standards.

EN 60950-1:2006

EN 50385:2002

EU directives.

73/23/EEC, Low Voltage Directive (LVD)

89/336/EEC, Electro-Magnetic Compatibility Directive (EMC).

1999/5/EC, Radio and Telecommunications

Terminal Equipment Directive (R&TTE), CE

2002/95/EC, Restrictions of Hazardous Substances Directive (RoHs)

2002/96/EC, Waste Electrical and Electronic Equipment Directive (WEEE)

HARDWARE

Material. Plastic.

Placement. Wallmount.

HxWxD. 240 x 167 x 42 mm.

Weight. 525g unpacked.

ENVIRONMENTAL

Operational temperature. 0°C to +45°C

Operational humidity. 5%-90% non-condensing

Product / Variant	1800MHz	900MHz	TCVCXO	GPS
HGPMA-B	●	○	●	○
HGPMA-C	○	●	●	○
HGPGA-B	●	○	●	●
HGPGA-C	○	●	●	●

(1800) denotes the 1800MHz model (HGFMA-B). (900) denotes the 900MHz model (HGFMA-C) expected to be available late 2010. Specification subject to alteration without prior notice. †preliminary statement of approvals (to be finalised)

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Datasheet

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