



# HSL 2.75G Femtocell Trial Package

## BSC, TRAU, Femtocells - GSM/GPRS/EDGE

*The HSL 2.75G Femtocell creates new opportunities for mobile network operators including improvements to the quality of the subscriber experience, the opportunity for new services, lower CAPEX and OPEX, increased operator revenues and cheaper calls for subscribers. The addition of femtocell infrastructure to an existing network, or as part of a new network build, need not be a demanding process. The HSL 2.75G Femtocell has been designed with this in mind and is therefore simple to deploy and manage.*

The HSL 2.75G Femtocell is targeted for use by all GSM network operators, and is suited for use in both residential and office environments. With support for GSM, GPRS and EDGE the femtocell enables network operators to provide their subscribers with excellent quality voice and messaging but also fast mobile data to compliment the subscriber's existing wireless broadband (Wi-Fi).

GSM in its 2G form is the most dominant and widely available mobile technology in the world. The HSL

2.75G Femtocell enables an operator to focus on revenue opportunities and cost reductions available from both its 2G subscriber base as well as its 3G subscriber base. 3G subscribers are able to use the HSL 2.75G Femtocell through 2G support within 3G handsets.

The dual technology capability (2G+3G) within mobile handsets is not mirrored in 3G femtocells which typically do not support 2G handsets, and thus exclude the 2G subscriber base. The HSL 2.75G Femtocell allows network operators to support both their dominant 2G subscriber base and also their growing 3G subscriber base.

The HSL 2.75G Femtocell provides a secure GSM experience and conforms to 3GPP specifications in terms of security, services and operation. The femtocell is securely connected back into the mobile operator's own core network using IPsec, ensuring communications privacy between the femtocell and operator.

## Datasheet

## HSL 2.75G FEMTOCELL TRIAL PACKAGE (TGP2G1)

The trial package allows interested parties to inexpensively and quickly start working with the HSL Femtocell as part of their own network, whether that be a test network in a lab, a live network or using the femtocell trial package as a standalone live network. The trial package's only limitation when compared with non-trial components is that the BSC is limited to 1000 femtocells in the trial version, meaning that no more than 1000 femtocells can be configured in the BSC. If your requirement is to operate no more than 1000 femtocells then you could regard this package as containing all you require for a live femtocell network, rather than a trial network.

The TGP2G1 trial package requires a Linux (CentOS) or Microsoft Windows server onto which the BSC, TRAU and MGCP (if required) applications can be installed. Either HCENN/T, HCENN or a customer supplied platform (subject to meeting required minimum specification) can be used.

### PACKAGE SPECIFICATION

TGP2G1	<b>HSL 2.75G Femtocell Trial Package</b> 1 x HGBSC-I (BSC – initial support for 1000 femtocells; max. 10,000 femtocells optional) 2 x HGFMA-B (Femtocells) 1 x SMA12-A (Support and Maintenance)
HGBSC-I	<b>HSL GSM BSC software licence (SCCP/IP[IPA], RTP+MGCP)</b> Max. 10,000 femtocell support (subject to hardware); SCCP/IP A-i/f w/IPA support; IP voice traffic trunk support (RTP+MGCP); TRAU; Gb over IP; software only (no hardware)
HGFMA-B	<b>HSL 2.75G Femtocell</b> TCVCXO equipped unit; 1800Mhz band; 23dBm; power supply (UK); antenna; LAN cable; packaged; hardware and software support for GSM/GPRS/EDGE See separate datasheet for full technical specification.
SMA12-A	Charged annually at percentage of original purchase price of hardware, software and licences

### Optional Components

TGB2GL	HSL GSM BSC Additional 1000 Femtocells Licence
HGBSC-B	<b>HSL GSM BSC SIGTRAN licence</b> SIGTRAN A-i/f w/Dialogic SCCP CO/CL licences; software only (no hardware)
HGBSC-T	<b>HSL GSM BSC SS7 (TDM) licence<sup>1</sup></b> TDM SS7 A-i/f w/Dialogic SCCP CO/CL licences; TDM voice traffic trunk support; software only (no hardware)
HCENN/T	<b>HSL CARRIER entryNODE TDM<sup>2</sup></b> Suitability: max. 5,000 femtocell support; 180 TDM channels (155 Erl. @ P005 GOS). KONTRON TIGH2U; Dual Quad-Core Intel <sup>®</sup> Xeon <sup>®</sup> Processors; 2U; hardware RAID; hot-swap PSUs and drives; 8 x E1s (2 x line cards).
HCENN	<b>HSL CARRIER entryNODE IP<sup>3</sup></b> Suitability: max. 5,000 femtocell support; IP signalling and traffic. KONTRON TIGH2U; Dual Quad-Core Intel <sup>®</sup> Xeon <sup>®</sup> Processors; 2U; hardware RAID; hot-swap PSUs and drives.
HPTE1X-A	<b>Performance Technologies 4xE1 PCI Express Line Card</b> Four port TDM E1 card for signalling and traffic. PT-PCE385-11925; PT-NXWRTU-11748; HSL Conduit Software.

<sup>1</sup> Further charges apply for TDM link hardware for signalling and voice traffic (see HPTE1X-A or HCENN/T).

<sup>2</sup> Microsoft Windows licence cost additional

<sup>3</sup> Microsoft Windows licence cost additional

## ORDERING INFORMATION

Interface to MSC	Providing own BSC platform	TGP2G1	HGBSC-B	HGBSC-T	HPTE1X-A	HCENN/T	HCENN
IPA	Yes	●	○	○	○	○	○
	No	●	○	○	○	○	●
TDM	Yes	●	○	●	●	○	○
	No	●	○	●	○	●	○
SIGTRAN	Yes	●	●	○	○	○	○
	No	●	●	○	○	○	●

### NOTE: TDM SS7 AND SIGTRAN A-INTERFACES

The trial package comes as standard with IPA support, trial SIGTRAN support and trial TDM SS7 support included for the A-interface.

- (a) With trial SIGTRAN support the SIGTRAN stack will terminate after 10 hours and will then need to be manually restarted. In order to upgrade to full SIGTRAN support HGBSC-B must be purchased.

*If you do not require full SIGTRAN support and it is acceptable to manually restart the stack after 10 hours of runtime, then it is not necessary to purchase HGBSC-B.*

- (b) With trial TDM SS7 support the TDM SS7 stack will terminate after 10 hours and will then need to be manually restarted. In order to upgrade to full TDM SS7 support HGBSC-T must be purchased. HCENN/T, or HPTE1X-A plus a suitable host server, are required for use with trial or full TDM SS7 support.

*If you do not require full TDM SS7 support and it is acceptable to manually restart the stack after 10 hours of runtime, then it is not necessary to purchase HGBSC-T.*