PRODUCT INFORMATION

HÖFT & WESSEL

FHSS transceiver module HW 86020: Full advantages of DECT protocols at 2.4 GHz

DECT – the ideal wireless solution!

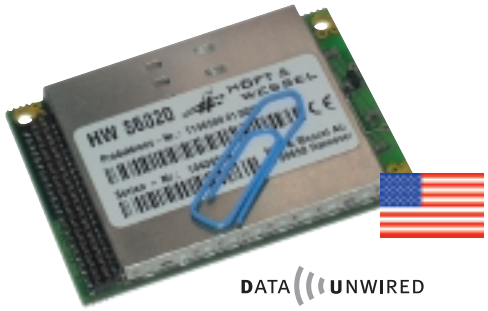
DECT (Digital Enhanced Cordless Telecommunications) is an open international standard for wireless communication offering voice and data services. Höft & Wessel's DECT transceiver module HW 86010 is the ideal solution for system integrators who take benefit of DECT.

Frequency Hopping – where DECT is not supported

The DECT standard is used in more than 100 countries world wide, including whole Europe. But some parts of the world still do not support it due to frequency allocation issues. Among those the USA. To date the doors to the US market are firmly locked for vendors of DECT systems.

Höft & Wessel overcomes that problem. The tranceiver module HW 86020 operates as low power frequency hopping spread spectrum (FHSS) device in the open 2,400 MHz band and complies with FCC part 15. The HW 86020 is fully interface-compatible with its DECT counterpart HW 86010. System integrators can easily adapt an existing DECT product to the US market. All big advantages of the DECT protocol stack are also available at 2,400 MHz.

- Collision-free data transfer
- Interoperability of multiple co-located installations
- Full privacy provided through data encryption
- Systems scaleable from point-to-point to multicell networks
- Up to 64 radio links per base station



Höft & Wessel – competent in wireless data

Höft & Wessel has been a pioneer in wireless data transmission over DECT and is a technology leader on transceiver modules. A team of highly skilled engineers is permanently involved in improving and customising the Höft & Wessel radio products for a whole range of applications – a key benefit for our customers.

Functional description

The FHSS transceiver module HW 86020 is a highly versatile and powerful engine for advanced radio applications. The architecture of the HW 86020 supplies a full set of useful features for best support of voice and data services in various environments.

Interfaces include RS-232 for circuit data transmission, PCM connection to standard ISDN or PBX systems, I^2C and analogue input/output. Eight general purpose I/Os plus an accessible bus interface make the HW 68020 ideally suited for automation and control applications. The HW 86020 offers error protected

KEY ADVANTAGES

- High speed data transmission paired with low power consumption
- Very small footprint for easy integration
- Versatile interfaces for all sorts of data and voice applications
- Suited for point-to-multipoint
- Prepared for voice services
- Prepared for the future features through simple firmware upgrades

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data channels with data rates up to 500 KBd.

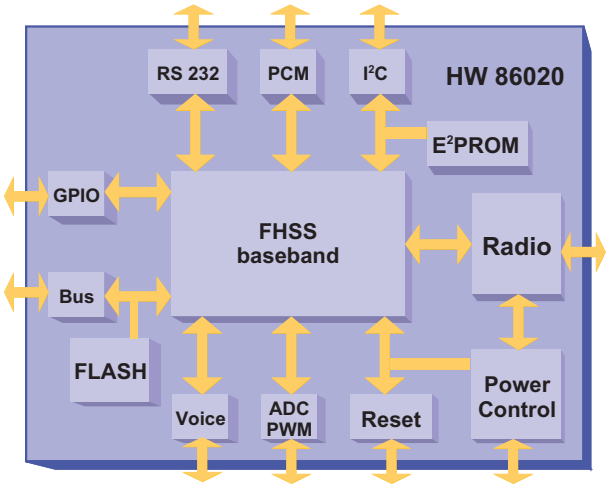
Benefits of a modular concept

All radio products from Höft & Wessel are based on a modular concept with outstanding advantages.

- Standard modules give best value at lowest price because of volume production
- No initial development costs because of ready-to-use functionality
- Change between DECT and FHSS standards just by plugging-in a different module
- Shorter development cycle, means early time-to-market

Chose from a family of modules the optimum solution for your requirements. All modules are interface compatible and interoperable to equipment following the same radio standard. All radio functions are perfectly encap-

Internal architecture



Technical data

Dimensions:	Approx. 52 mm x 37 mm x 8 mm
Weight:	30 g
Temperature range:	-10 to +55 °C operating
Operating voltage:	3.0 V to 3.6 V DC for digital part
	3.3 V to 4.7 V DC for radio frequency part
CLDPS power consumption:	12 mA @ Idle
	110 mA @ 115 KBd
	300 mA @ 500 KBd
Frequency:	2.4 to 2.483 GHz
Transmit power:	100 mW max.
Data rate:	up to 500 Kbps with CLDPS
Standards:	FCC part 15 (low power devices operating at 2.4 GHz)
	EN 300 175 (DECT Common Interface) parts 4 to 7
	ETS 300 651 (Data Services DSP C.2)
Certification:	FCC part 15
	RSS 210
Approval:	FCC (US)
	IC (Canada)
Interface:	50-pin system interface
Data interface:	RS-232, 3.3V, up to 115.2 KBd RTS/CTS Handshake
Modem lead signals:	RTS/CTS, DTR/DSR, DCD, RI
I/O interface:	General purpose I/O pins
Analogue interface:	Microphone, speaker, ringer
Other interfaces:	PCM, I^2C, bus interface
Antenna system:	2 integrated antennas
	External antenna connector (solder pads)
Range:	Up to 300 m (outdoor), up to 60 m (indoor)

DATA UNWIRED

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