

CCS Technical Documentation

NSB-9 Series Transceivers

General Information



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NSB-9 Product Selection

The **NSB-9** is a dualband radio transceiver unit designed for the GSM850 and GSM1900 networks. GSM850 power class is 4, GPRS850 power class is 5 and GSM1900 power class is 1. It is a true DCT-4 based transceiver with new advanced features.

NSB-9 Product and modules

Name	Module name	Module code
Basic transceiver	NSB-9	0508623
Radio module	RM9	0202046
Flip	NHL-6 Flip	0262868
Flip	NSB-9 Flip basic LTA	9458924
	NSB-9 Flip basic CAN	9459047
Mechanics assembly parts	NSB-9 HDB58	0262884
Software module (basic SW)	SW NSB-9 basic mech.module	0243727

Figure 1: NSB-9 transceiver



Accessories List

Batteries	Product code:
Semi-fixed Battery BLC-2 1000mAh	0670403
Chargers	Product code:
Travel Charger ACP-12E (EUR)	0675294
Travel Charger ACP- 12X (UK)	0675296
Travel Charger ACP-12U (US) Made in country	0675303
Travel Charger ACP- 12UB (US) (Countries like Brazil/Portugal)	0675293
Travel Charger ACP-12G (US) (Countries like Brazil/Gradient)	0675295
Travel Charger ACP-12K (Korea)	0675301
Travel Charger ACP-12AR (Argentina)	0675298
Travel Charger ACP-12A (Australia)	0675300
Mobile Charger LCH-12	0675328
<i>Note! ACP-7, ACP-8, and LCH-8 chargers are also compatible with NSB-9</i>	
Portable and Office Accessories	Product code:
Boom Headset HDB-4	0694094
Stereo Headset HDS-3	0694093
Loopset LPS-4	0630443
DCV-14 Connectivity Stand	0273869
DT-1 Music Stand	0694119
Mobile Accessories:	Product code:
Mobile Holder MBC-13L	0650048
Swivel Mount HHS-15	0620060
Car Installation Kit 126 CARK126 (Full Car Kit providing charging)	0085197
Handsfree Unit HFU-4	0694103
HF Microphone HFM-8	0690016
External HF Speaker HFS-12	0692009
Mounting Plate MKU-1	0620036
System Cable SCU-4	0630471
Power Cable PCU-4	0630478
Other Accessories:	Product code:
Connectivity Cable DKU-5 (FBUS /USB Cable)	0730235
PC Suite	
Carrying accessories	

Technical Specifications

General Specifications of Transceiver NSB-9

Unit	Dimensions (mm) (L x W x T)	Weight (g)	Volume (cm ³)
NSB-9 Transceiver with BLC-2 battery pack	55 x 117 x 22.5	122	105

Parameter	Unit
Cellular System	GSM850, GSM1900
RX Frequency Band	GSM850: 869.2 - 893.8 MHz GSM1900: 1930.2 - 1989.8 MHz
TX Frequency Band	GSM850: 824.2 - 848.8 MHz GSM1900: 1850.2 - 1909.8 MHz
Output Power	GSM850 : +5 ...+33 dBm / 3.2 mW ... 2 W GSM1900: +0 ...+30 dBm / 1.0 mW ... 1 W
Number of RF Channels	GSM850: 124 GSM1900: 299
Channel Spacing	200 kHz
Number of TX Power Levels	GSM850 *: 15 GSM1900: 16

Talk time	
Battery : BLC-2	up to 4.5 hours
Talk time variations:	
Integrated Handsfree (IHF) talk time	up to 4 hours
Standby time	
Battery: BLC-2	up to 10 days (240 hours)
Radio + headset	up to 30 hours
Radio + IHF	up to 16 hours

Variation in operating times may occur depending on SIM card, network and usage settings, usage style and environments.

Environmental conditions

Environmental condition	Ambient temperature	Notes
Normal operation	-10 °C ... +55 °C	Specifications fulfilled
Reduced performance	+55 °C ... +65 °C	Operational only for short periods
Intermittent operation	-20 °C ... -10 °C and +65 °C ... +80 °C	Operation not guaranteed but an attempt to operate will not damage the phone
No operation	-40 °C ... -20 °C	Operation not possible but an attempt to operate will not damage the phone
No operation or storage	< -40 °C and > +80 °C	No storage; an operation attempt may cause permanent damage
Charging allowed	-25 °C ... +60 °C	
Long term storage conditions	0 °C ... +40 °C	

Transceiver Features

Transceiver main HW parts / features include:

- Dual band GSM 850/1900
- FM Stereo Radio
- Passive matrix colour display 4096 colours (128x128 pixels used in applications i.e. Series 40, active area 30.8mm x 30.8mm), Display brightness control
- 4-way joystick
- ITU-T keypad and full alphanumeric keyboard
- Side volume keys, also used in integrated handsfree mode to control the speaker volume
- Internal antenna
- Internal vibra
- Integrated handsfree (IHF)
- Speech Codecs: FR, EFR, AMR
- Real time clock (RTC)
- Pop-Port (TM) connector

Electrical Characteristics

Absolute Maximum Ratings

Parameter	Min.	Typical	Max.	Unit
Battery Voltage, Idle	-0.3		5.0	V
Battery Voltage, Call	-0.3		4.8	V
Charger Input Voltage	-0.3		16	V
Charging Current			850	mA

Supply Voltages

Parameter	Min.	Typical	Max.	Unit / Notes
Battery Voltage	3.1	3.6	4.2	V / SW cut-off 3.2 V

Current Consumption

Condition	Min.	Typical	Max.	Unit
Call GSM 850 GSM 1900		250 280		mA
Idle		2.5-3.5		mA
Power off			150	μA

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