

Programmes After Market Services NHE-8/9 Series Transceivers

Chapter 2

General Information

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Introduction

This chapter contains a list of products/modules together with their associated order codes, and details of the technical specifications for the Transceiver; these specifications are split into general, transmitter and receiver functions.

The NHE-8/9 are handportable cellular phones for the pan-European GSM network. They have a GSM phase 1 power class 4 transceiver providing 11 power levels with a maximum output power of 2W.

The basic handportable package offers the user a standard battery pack and travel charger for charging from mains. Accessories and other options are listed in the table below.

Modules and Accessories

Modules

Unit/type:	Product code:	Module code:
Transceiver NHE-8	0500810	
Transceiver NHE-9	0500811	
GJ3 System Module		0200883
GU9 UIF Module		0200886
MNHE8 Mechanical Assembly		0261117
MNHE9 Mechanical Assembly		0261118

Accessories

All accessories are deemed non-serviceable unless stated

Standard Battery BMH-1	0670199	
Extended Battery BLJ-4	0670190	
Fast Travel Charger ACH-6X (UK)	0675087	
Fast Travel Charger ACH-6E (EUR)	0675084	
Fast Travel Charger ACH-6A (AUS)	0675086	
Fast Travel Charger ACH-6U (US)	0675085	
Universal Mobile Charger LCH-6	0675076	
Desktop Stand CGD-8	0675156	
External Antenna Unit for Data AAH-1D	0750077	
PCMCIA Card DTP-2C		
Data Cable DLH-5	0730059	
Data Cable DAU-4F	0730056	
I.R.Link Module JLP-1	0750079	
I.R.Connector JLC-1	0750078	

Headset Adapter HDA-4	0694042	
Headset HDC-2	0694017	
Fixed Mobile Charger LCM-1	0675077	
Power Cable for above PCM-5	0730058	
Handsfree unit PHF-3		serviceable

Mobile Accessories

Mobile Holder MBT-5	0620030	
Handsfree Unit PHF-3	0694030	
• HF/charger module DC9		0200656
• mechanics MPHF3		0260681
Power Cable PCH-4J	0730055	
HF Microphone HFM-7	0690012	
HF Speaker HFS-9	0692007	
Mounting Plate MKE-7	0650021	
Swivel Plate HHS-7	0650020	
Power Cable XLC-1	0730060	

Technical Specifications

General Specifications

Temperature range (Nominal)	+5° C to +40° C
Temperature range (Extreme conditions) –specifications fulfilled	–20° C to +55° C
Operating time (with BMH-1)	
• talk time	up to min (DTX OFF, 2W) up to min (0 speech, DTX ON)
• standby time	up to hrs
Battery voltage	V
Nominal current consumption	
• power off mode m(max):	1.5 mA
• idle mode (SIM clock OFF)	4.6 mA (strong field, no neighbours) 9.1 mA (weak field, 5 weak + 1 strong neighbours)
• call mode, 2W (typ):	224 mA
Dimensions (h x w x d)	136 x 45 x 21mm
Weight	
• transceiver + BLJ-1	146g
• transceiver (BMH-1)	187g

Electrical Specifications

Transceiver

Cellular system	<i>Global System (GSM)</i>
Number of RF channels	<i>124</i>
Number of time domain channels	<i>81 RF channel</i>
Duplex spacing	<i>45 MHz</i>
Channel spacing	<i>200 kHz</i>
Modulation type	<i>GMSK</i>

Receiver Branch

Frequency band	<i>935.2...959.8 MHz</i>
Type	<i>linear, 2 IFs</i>
IF	<i>71 MHz and 13 MHz</i>
3 dB bandwidth	<i>± 100 kHz</i>
Reference noise bandwidth	<i>270 kHz</i>
Sensitivity	<i>-102 dBm RX channel input I/Q S/N ratio > 8 dB</i>
AGC dynamic range	<i>94 dB, typ</i>
Receiver gain	<i>65 dB (voltage gain)</i>
RF front end gain control range	<i>40 dB</i>
2nd IF gain control range	<i>57 dB</i>
Input dynamic range	<i>-102...-10 dBm</i>
Gain relative accuracy in receive band	<i>± 1.5 dB</i>
Gain relative accuracy on channel	<i>± 0.4 dB</i>

Transmitter Branch

Frequency band	890.2...914.8 MHz
Type	Upconversion
Intermediate frequency	116 MHz
Gain control range	20 dB
Power class	4
Output power	13-33 dBm/20 mW...2 W
Power levels	11
Power level step size	2 dB \pm 1.5 dB
Tolerance at 2 W power	< \pm 2 dB (ext. temp. \pm 2.5 dB)
Tolerance at other levels	\pm 3 dB (ext. temp. \pm 4 dB)
Frequency error	\pm 0.1 ppm
RMS phase error	< 5°
Peak phase error	< 20°