

***HandyPort Usage***

# **How to use 7 Data Bits in HandyPort**

***Application Note***

**2013. 08. 01**  
**AN-2010-12E**



# 1. How to use 7 Data Bits in HandyPort

This document describes the supportable COM port settings and how to use 7 data bits in HandyPort.

## 1.1. COM port Settings

The HandyPort supports COM port settings as follows

- Baud rate: 1,200/2,400/4,800/9,600/19,200/38,400/57,600/115,200 bits per second
- Data Bits: 8 Bits
- Parity Bit: None (N), Odd (O) and Even (E) Parity
- Stop Bit(s): 1 and 2 Bit(s)
- Flow Control<sup>1</sup>: None, Hardware (between HandyPort and DTE) and DTR/DSR (between DTE and DTE)

## 1.2. Using 7 data bits in HandyPort

In general, the serial devices use 8-N-1 as a combination of data bits-parity bit-stop bit(s) in RS-232 communications. This means that it is required 10 bits to send a character because it is required 1 start bit for distinguishing characters. If some devices use 7 data bits, it uses either odd or even parity in general. In this case, it is required 10 bits to send a character, too. The HandyPort can support 7 data bits using this as follows:

**Figure 1 An example**

Item	DTE <sup>2</sup>	HandyPort	Over-the-Air	HandyPort	DTE
Settings	7-E/O-1 <sup>3</sup>	8-N-1		8-N-1	7-E/O-1
Operation	7-E/O-1	(7+E/O)-N-1		(7+E/O)-N-1	7-E/O-1

The HandyPort will pass 8 data bits including 7 data bits and a parity bit transparently from one end to the other end in above example. Even if the HandyPort cannot configure 7 data bits, it can be operating for 7 data bits like above example.

<sup>1</sup> This is applicable for HPS-120 only. The HPS-110 doesn't support the flow control.

<sup>2</sup> DTE: Data Terminal Equipment

<sup>3</sup> 7-E/O-1: 7 Data Bits, 1 Even or Odd Parity Bit, and 1 Stop Bit