

Pace and IrDA

Comments by Pace:

“The system used was chosen by our customers (the network providers) and is a high speed system that gives some " future proofing " of the design . The system is designed for remote keyboard use (Web browsing) and to enable multiple handsets to be used " simultaneously " as required when playing games . This is because at some time in the near future the network providers will offer these services.

"Normal" (IR) handsets use a system of modulating (switching on and off) a carrier signal. The normal frequency of the carrier being in the range of 35kHz to 60kHz.

The system used by Pace uses TWTV protocol which is based on the IrDA standard that has been designed to enable computer peripherals to be linked without cables. (This is not surprising as modern digital cable set top boxes contain a powerful micro processing systems and the Pace boxes are the first to also provide an integrated cable modem within the box.)

The handset data is transmitted as discrete pulses of IR - it is not carrier based. The pulse rate is approximately 115kHz. The handsets have Identification keys / tabs that enable the receiver to identify the handset.

Each key sends a 7-byte package of data within 600uSec (the same time that it takes to send only 1 or 2 bits of information with the normal system). This allows the data to be sent very quickly thus freeing time for a second handset to jump in . The receiver software also adds a time stamp to the data to enable the games programmes to decide which handset responded first . The system and protocols used are covered by patents held by TWO WAY TV LTD.”

It is our understanding that the following Pace digital cable models use IrDA:

D1010T

D1000T

Model D14001N uses IR not IrDA and is OK.