

PHS is a wireless access system based on digital cordless technology using the 1.9 GHz frequency band. It provides high capacity with good voice quality and a broad range of data transmission including ISDN services. PHS systems are easily implemented in the short term and at low cost, covering high-density areas to low-density areas. It is also equipped with dynamic channel assignment that allows coexistence of public and private PHS systems in the same area and same frequency band without any frequency arrangement.

PHS provides public communication services with low mobility by using a micro-cell architecture ranging from 200 m to 500 m in radius depending on the transmitted power and environment. It efficiently covers urban to suburban areas and indoor areas such as public halls, department stores, theaters, subway stations etc.

PHS uses 32 kbps ADPCM for voice coding, TDMA/TDD for multiple access and a transmission rate of 384 kbps. It is able to support high speed data transmission and can withstand multi-path interference for good mobility. In view of the above, PHS is the best multi-purpose communication tool.

Parameter	Characteristic/Value
Modulation method	$\pi/4$ shift QPSK Transmission side filter
Transmission rate	384 Kbps
Frame length	5 ms
Packet length	625 is
Bit length	2.6 is
Transmission rate accuracy	± 5 ppm
Transmission timing	± 5.6 is (± 1 symbol)
Transmission jitter	± 0.7 is ($\pm 1/8$ symbol)
Frequency stability	± 3 ppm (± 5.75 kHz)
Modulation accuracy	$< 12.5\%$
Adjacent channel power (modulation)	Standardized at transient
Adjacent channel power (transient)	$2 \times Af$ (600kHz offset): < 0.8 iW $3 \times Af$ (900kHz offset): < 0.25 iW
Allowed value for occupied bandwidth	288 kHz
Inter-modulation	Not standardized
Transmission spurious	Within band: < 250 nW Outside of band: < 2.5 iW
Carrier off time leakage power	< 80 nW
Cabinet radiation	< 2.5 iW
Antenna gain	Private : < 2.14 dBi (Cabinet built in)