

| Product Features | Philips' Smart Label and Tag ICs | | | | | |
|-------------------------|----------------------------------|---------------------------|-------------------------|-------------------------|---|---|
| | I•CODE 1 SL1 ICS30 | I•CODE 1 HC* SL1 ICS31 | I•CODE SLI SL2 ICS20 | I•CODE HSL SL3 ICS30 | HITAG™1 | HITAG™ 2 |
| Memory | | | | | | |
| EEPROM size | 512 bit | 512 bit | 1024-bit | 2048-bit | 2048-bit | 256-bit |
| Write Endurance | 100 000 cycles | 100 000 cycles | 100 000 cycles | 100 000 cycles | 100 000 cycles | 100 000 cycles |
| Data Retention | 10 years | 10 years | 10 years | 10 years | 10 years | 10 years |
| Organisation | 16 blocks á 4 bytes | 16 blocks á 4 bytes | 32 blocks á 4 bytes | 64 blocks á 4 bytes | 64 blocks á 4 bytes | 8 blocks á 4 bytes |
| RF-Interface | | | | | | |
| According to | I•CODE 1 | I•CODE 1 | ISO 15693 | ISO WD 18000 | HITAG™ 1 | HITAG™ 2, ISO 14223/1 |
| Frequency | 13.56 MHz | 13.56 MHz | 13.56 MHz | UHF/2.45 GHz | 100 kHz.. 150 kHz | 100 kHz.. 150 kHz |
| Baudrate | up to 26.5 kbit/s | up to 26.5 kbit/s | up to 53 kbit/s | up to 40 kbit/s | up to 4 kbaud | up to 4 kbaud |
| Anticollision | time slot | time slot | acc. ISO 15693 | adapted binary tree | yes, collision detection | - |
| Operating Distance | up to 1.5m | up to 1.5m | up to 1.5m | up to 3.5m | up to 1.5m | up to 1.5m |
| Security | | | | | | |
| Unique Serial Number | 8 byte | 8 byte | 8 byte | 8 byte | 4 byte | 4byte |
| Write Protection | blockwise | blockwise | blockwise | bitwise | blockwise | blockwise |
| Random Number Generator | - | - | - | - | yes | yes |
| Access Keys | - | - | - | - | 32-bit | 48-bit |
| Access Conditions | - | - | - | - | Encrypted Mutual Authentication or Plain | Encrypted Mutual Authentication or Plain |
| Encryption Algorithm | - | - | - | - | yes | yes |
| Special Features | | | | | | |
| EAS | yes | yes | yes | - | | |
| AFI | yes | yes | yes | yes | | |
| ePC | yes | yes | yes | yes | | |
| Multi-Mode | - | - | - | - | - | yes |
| Packaging | | | | | | |
| Sawn Wafer | SL1 ICS3001W/N5D | SL1 ICS3101W/N5D | - | - | HT1ICS3002W/N5A | HT2ICS2002W/N5A |
| Sawn Wafer (Au-Bumped) | SL1 ICS3001W/N4D | SL1 ICS3101W/N4D | SL2 ICS2001DW/V4D | SL3 ICS3001W/V4D | - | - |
| MOA2 Module | SL1 MOA2S30/D | - | SL2 MOS2001DV | - | HT1MOA2S30/E/3 | HT2MOA2S20/E/3 |
| FCP2 Module | - | - | SL2FCS2001DV/DX | - | - | - |
| Stick SOT 385-1 | - | - | - | - | HT1DC20S30/F | HT2DC20S20/F |

*HC: high capacitance (97pF)

| | HITAG™ Reader ICs |
|-----------------------------|------------------------------|
| | HTRC110 HITAG™ Reader ICs |
| Product Information | |
| Modulation Type | 100 % ASK |
| Dimensions [mm] | 6.2 × 8.75 × 1.45 |
| Serial Interface | CMOS |
| Supply Voltage [V] | 5V +/-10% |
| Antenna Driver Current [mA] | 200 continuous |
| Clock Osc Frequency | 4.16 MHz |
| Operating Temperature [C] | -40..+85 |
| Power Down Current | 7µA typical |
| Supported Products | |
| HITAG™ 1 | yes |
| HITAG™ 2 | yes |
| Security | |
| HITAG™ 1 data encryption | - |
| HITAG™ 2 data encryption | - |
| Package | |
| SO14, Tube | HTRC110 01T/02EE |
| SO14, Reel | HTRC110 01T/03EE |
| LQFP32, Reel | - |