

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	-