

# HTSICC5601EW

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HITAG S transponder IC

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**Quick ordering**

HTSICC5601EW/C7:00

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The HITAG product line is well known and established in the contactless identification market.

Due to the open marketing strategy of NXP Semiconductors there are various manufacturers well established for both the transponders / cards as well as the Read/Write Devices. All of them supporting HITAG 1 and HITAG 2 transponder IC's. With the new HITAG S family, this existing infrastructure is extended with the next generation of IC's being substantially smaller in mechanical size, lower in cost, offering more operation distance and speed, but still being operated with the same reader infrastructure and transponder manufacturing equipment.

One Protocol - two memory options.

The protocol and command structure for HITAG S is based on HITAG 1, including anticollision algorithm.

Two different memory sizes are offered and can be operated using exactly the same protocol.

- HITAG S256 with 256 bit Total Memory Read/Write
- HITAG S2048 with 2048 bit Total Memory Read/Write

**Features and benefits**

- Integrated Circuit for Contactless Identification Transponders and Cards
- Integrated resonance capacitor of 210 pF with ±5 % tolerance over full production
- Frequency range 100 kHz to 150 kHz.

**Protocol**

- Modulation Read/Write Device → Transponder: 100 % ASK and Binary Pulse Length Coding
- Modulation Transponder → Read/Write Device: Strong ASK modulation with Anticollision, Manchester and Bi-phase Coding
- Fast Anticollision Protocol for inventory tracking: 100 Tags in 3.2 seconds
- Cyclic Redundancy Check (CRC)
- Optional Transponder Talks First Modes with user defined data length
- Temporary switch from Transponder Talks First into Reader Talks First Mode
- Data Rate Read/Write Device to Transponder: 5.2 kBit/s
- Data Rates Transponder to Read/Write Device: 2 kBit/s, 4 kBit/s, 8 kBit/s

**Memory**

- Two memory options (256 bit, 2048 bit)
- Up to 100000 erase/write cycles
- 10 years non-volatile data retention
- Secure Memory Lock functionality

**Supported standards**

- Full compliant to ISO 11784/85 Animal ID
- Targeted to operated on hardware infrastructure of new upcoming standards

ISO 14223 (Animal ID with anticollision and read/write functionality)

ISO 18000-2 (AIDC Techniques-RFID or Item Management)

- Supports German Waste Management Standard and Pigeon Race Standard

**Security features**

- 32 bit Unique Identification Number (UID)
- 48 bit secret key based encrypted authentication

**Delivery types**

- Sawm, gold - bumped 8" Wafer
- Sawm, gold - megabumped 8" Wafer
- Contactless Chip Card Module MOA2
- HVSON2

**Applications**

- Animal Identification
- Laundry Automation
- Beer keg and gas cylinder logistic
- Pigeon Race Sports
- Brand Protection Applications

► **Series**HTSx  
HITAG S transponder IC

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[General product disclaimer](#)  
[Quality and reliability disclaimer](#)

## Package

Type number	Package	Outline version	Reflow-/Wave soldering	Packing	Product status	Marking	Orderable part number, (Ordering code (12NC))
HTSICC5601EW/C7	Uncased die			Wafer, Sawm on FFC, Non-Conductive	Active	Standard Marking	HTSICC5601EW/C7:00 (9352 941 91003)
				Die In Waffle Carriers 2"	Active	Standard Marking	HTSICC5601EW/C7:02 (9352 941 91026)
				Wafer, Sawm on FFC, Non-Conductive	Active	Standard Marking	HTSICC5601EW/C7:00 (9352 941 91005)

## Quality, reliability & chemical content

Type number	Orderable part number	Chemical content	RoHS / RHF	Leadfree conversion date	MSL	MSL LF
HTSICC5601EW/C7	HTSICC5601EW/C7:00	HTSICC5601EW/C7		Always Pb-free	NA	NA
HTSICC5601EW/C7	HTSICC5601EW/C7:02	HTSICC5601EW/C7		Always Pb-free	NA	NA
HTSICC5601EW/C7	HTSICC5601EW/C7:00	HTSICC5601EW/C7		Always Pb-free	NA	NA

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## Documentation for this product

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File name	Title	Type	Format	Date
<a href="#">H079233_HITAGS_TransponderIC_rev3_3</a>	HITAG S; HTSICH56/HTSICH48 transponder IC	Data sheet	pdf	2009-06-29
<a href="#">HTSICH56_48_SDS</a>	HITAG S transponder IC	Short data sheet	pdf	2014-12-18
<a href="#">HT081410</a>	AN10214-01; Transponder IC; Hitag S Coil Design Guide	Application note	pdf	2003-02-13
<a href="#">75017595</a>	RFID for brand protection - secure your most valuable assets & increase customer engagement	Leaflet	pdf	2014-12-17
<a href="#">HT124430</a>	Data sheet addendum: HITAG S; HTS IC H32/HTS IC H56/HTS IC H48 Transponder IC; Bumped Sawm Wafer on UV Tape Specification	Other type	pdf	2006-05-17
<a href="#">HT078830</a>	Data sheet addendum: HITAG S; HTS MO H32/HTS MO H56/HTS MO H48, Contactless Chipcard Module Specification	Other type	pdf	2003-12-01
<a href="#">HTSICH56_48_Bumped_wafer_spec_079032</a>	Data sheet addendum: HITAG S; HTSICH56/HTSICH48 bumped wafer specification	Other type	pdf	2009-06-29
<a href="#">HTSH5601ETK_HVSON2_Package_spec_107132</a>	Data sheet addendum: HITAG S; HTSH5601ETK/HTSH4801ETK HVSON2 package specification	Other type	pdf	2009-06-29
<a href="#">HTSICC56_48_Megabumped_wafer_spec_145832</a>	Data sheet addendum: HITAG S; HTSICC56/HTSICC48 megabumped wafer specification	Other type	pdf	2009-06-29

## Ordering & availability

Type number	Ordering code (12NC)	Orderable part number	Region	Distributor	In stock	Order quantity	Inventory date	Buy online	Samples
HTSICC5601EW/C7	9352 941 91003	HTSICC5601EW/C7:00							<a href="#">Order samples</a>
HTSICC5601EW/C7	9352 941 91026	HTSICC5601EW/C7:02							<a href="#">Order samples</a>
HTSICC5601EW/C7	9352 941 91005	HTSICC5601EW/C7:00							not available

**Sample**  
 Sample orders normally take 2-4 days for delivery.  
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