

# SIMATIC RF600 overview

Keeps an eye on a thousand objects.

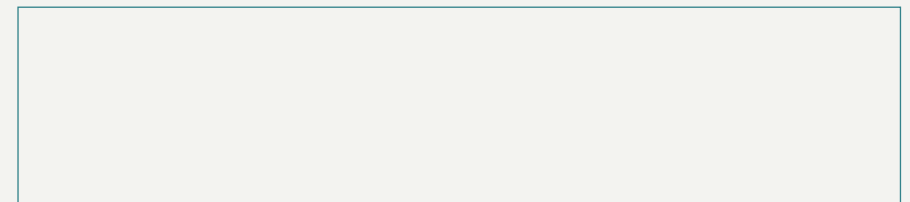


SIMATIC RF600 is the enabler for seamless production and supply chain solutions that can monitor, track, and identify thousands of objects. In logistics applications with large numbers of containers, pallets, or even finished products, the system's full potential can be realized – for example, in tasks involving long read ranges and bulk reading. The high-performance UHF RFID system transfers this data to the cloud where it is evaluated for the purpose of optimizing production processes and supply chains based on the knowledge gained.

## Your benefits at a glance:

- High reliability with long read ranges and robust handling of overreach
- Maximum flexibility in terms of connectivity: connection options for all fields of application (industry, cloud, logistics)
- Reduced project expenditure thanks to quick and easy access to proven configuration, commissioning, and diagnostic tools via a web browser

## Get to know the members of the product family



# SIMATIC RF600: readers

Take a giant step closer to digitalization with a high-performance, standard-setting UHF RFID system.



**SIMATIC RF610R**

Compact; integrated, circular, polarized antenna; high degree of protection IP67; read range up to 1.8 m; wide range of communication options; dimensions 133 x 133 x 45 mm (W x H x D).



**SIMATIC RF615R**

Compact; integrated, circular, polarized antenna; external antenna connection; high degree of protection IP67; read range up to 4 m; wide range of communication options; dimensions 133 x 133 x 45 mm (W x H x D).



**SIMATIC RF680R**

With four flexibly configurable antenna connections; high degree of protection IP65; read range up to 8 m; wide range of communication options; dimensions 258 x 258 x 80 mm (W x H x D).



**SIMATIC RF685R**

Integrated adaptive antenna and external antenna connection; high degree of protection IP65; wide range of communication options; dimensions 258 x 258 x 80 mm (W x H x D).



**SIMATIC RF690R**

Ultra-high reading rate for logistics applications with large tag populations; four configurable antenna connections; PoE; wide range of communication options; dimensions 245 x 209 x 41 mm (W x H x D).



**SIMATIC RF695R**

Ultra-high reading rate for logistics applications with large tag populations; eight configurable antenna connections; PoE; wide range of communication options; dimensions 245 x 209 x 41 mm (W x H x D).

# SIMATIC RF600: readers

Take a giant step closer to digitalization with a high-performance, standard-setting UHF RFID system.



Mobile handheld terminal  
**SIMATIC RF660M**

Compact; for applications in the areas of production logistics, warehouse management, inventory, and service; important tool for commissioning and testing RFID systems.

# SIMATIC RF600: antennas

Robust and with a high degree of protection, they are also suitable for harsh industrial use.



**SIMATIC RF615A**

Extremely compact; ideal for use in production, e.g. for assembly lines or track-guided conveyor systems; dimensions 52 x 52 x 16 mm (W x H x D).



**SIMATIC RF622A**

Extremely compact; ideal for use in production, e.g. for assembly lines or track-guided conveyor systems; dimensions 76 x 76 x 20 mm (W x H x D).



**SIMATIC RF642A**

Robust and compact; for industrial applications in production and logistics; with its linear polarization, especially suitable for severely metallic environments; dimensions 185 x 185 x 45 mm (W x H x D).



**SIMATIC RF650A**

Robust and compact; for industrial applications; with its circular polarization, especially suitable for reading transponders in varying orientations; dimensions 198 x 198 x 60 mm (W x H x D).



**SIMATIC RF662A**

Suitable for a wide range of production and logistics applications requiring extended reading range; universal UHF antenna; robust design; high degree of protection; dimensions 312 x 312 x 68 mm (W x H x D).



**SIMATIC RF680A**

Adaptive antenna with switchable polarization (can be set to horizontal, vertical, or circular); makes project planning more reliable even in challenging radio environments; dimensions 198 x 198 x 60 mm (W x H x D).

# SIMATIC RF600: hard tags

Passive and maintenance-free, they guarantee smooth operation.

## Transponder categories

Our RF600 hard tags are available for the following use cases:



Standard



Logistics



SmartCard



Heat  
resistant



On metal



In metal



Special  
applications



**SIMATIC RF610T**

Flexible card in ISO format; versatile; can be flexibly mounted on a wide range of materials; plastic enclosure designed for food safety; wideband.



**SIMATIC RF620T**

Container transponder; resistant to environmental influences and cleaning agents; can be mounted on plastic, wood, and glass – and on metal with a spacer; food-safe plastic enclosure; wideband.



**SIMATIC RF621T**

Container transponder; high range; resistant to environmental influences and cleaning agents; can be mounted on metal with a spacer; wideband.



**SIMATIC RF625T**

Disk transponder; can be countersunk in metal and flush-mounted on surfaces; robust; high degree of protection (IP68); two frequency versions: 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT).



**SIMATIC RF630T**

Screw transponder with M6 grub screw; robust; resistant to cleaning agents; two frequency versions: 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT).

# SIMATIC RF600: hard tags

Passive and maintenance-free, they guarantee smooth operation.



**SIMATIC RF640T**

Robust, compact tool transponder in IP68/IPx9K; two frequency versions, for 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT); can be used directly on metal; European version with ATEX approval.



**SIMATIC RF645T**

Passive, maintenance-free on-metal data storage medium; robust and compact; high degree of protection (IP68); large memory (448-bit EPC/2048-bit user); resistant to mineral oils, lubricants, and cleaning agents; wideband.



**SIMATIC RF650T**

High range; high degree of protection (IP68); self-adhesive; storage capacity 128-bit EPC, no user memory.



**SIMATIC RF670T OEM**

Heat-resistant; high range; can be mounted on-metal; high degree of protection (IP67); withstands temperatures up to 250 °C; storage capacity up to 62 Byte/ 496-bit EPC plus up to 752-bit user memory; used in paintshops.



**SIMATIC RF670T LOGISTIC**

High range; can be mounted on-metal; high degree of protection (IP68/IPx9K); heat resistant up to 140 °C; storage capacity up to 62 Byte/ 496-bit EPC plus up to 752-bit user memory.



**SIMATIC RF671T**

High range; can be mounted on-metal; high degree of protection (IP67); storage capacity 12 Byte/ 96-bit EPC plus 32-bit user memory.

# SIMATIC RF600: hard tags

Passive and maintenance-free, they guarantee smooth operation.



**SIMATIC RF680T**

Heat-resistant; high range; high degree of protection (IP68/IPx9K); silicon-free; withstands temperatures up to 220 °C; storage capacity 96/ 240-bit EPC plus 512-bit user memory; wideband.



**SIMATIC RF682T**

Heat-resistant; high range; high degree of protection (IP68/IPx9K), silicon-free; withstands temperatures up to 220 °C; storage capacity 256-bit EPC plus 3072-bit user memory; wideband.



**SIMATIC RF683T**

Heat-resistant; high range; high degree of protection (IP68/IPx9K); withstands temperatures up to 220 °C; storage capacity 32-byte/ 256-bit EPC plus 384-byte/ 3kbit user memory.

# SIMATIC RF600: SmartLabels

Passive and maintenance-free, they guarantee smooth operation.

## Transponder categories

Our RF600 SmartLabels are available for the following use cases:



Standard



Logistics



Heat  
resistant



On metal



Special  
applications



**SIMATIC RF630L**  
6GT2810-2AB02-0AX2

PET transparent, 97x27 mm, 860 to 930 MHz, EPC 56-byte/ 448-bit, user memory 256-byte/2048-bit, adhesive on one side, not printable, -40 to +80 °C, 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AB03

PET, 54x34 mm, 860 to 930 MHz, EPC 30-byte/240-bit, user memory 64-byte/ 512-bit, adhesive on one side, printable, -40 to +80 °C, 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AC84

PET, 73x12.5 mm, 860 to 930 MHz, EPC 56-byte/448-bit, user memory 256-byte/2048-bit, adhesive on one side, printable, -20 °C to +70 °C, 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AE81-0AX3

PET, 75x20 mm, 860 to 930 MHz, EPC 56-byte/448-bit, user memory 256-byte/2048-bit, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 120 °C), 76.2 mm (3") core diameter, 4 m range.



**SIMATIC RF630L**  
6GT2810-2AE82-1AX0

PET white, 80x26 mm, 860 to 930 MHz, EPC 16-byte/128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C short term 160 °C, 76.2 mm (3") core diameter, 5 m range.

# SIMATIC RF600: SmartLabels

Passive and maintenance-free, they guarantee smooth operation.



**SIMATIC RF630L**  
6GT2810-2AE82-0AX0

PET white, 90x30 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AE82-0AX1

PET white, 90x30 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 152.4 mm (6") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AE82-0AX2

SmartLabel like RF630L 6GT2810-2AE82-0AX1 as tamper-proof version with safety perforation.



**SIMATIC RF630L**  
6GT2810-2AE82-2AX0

PET white, 45x20 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AE83-0AX0

PET white, 75x25 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3") core diameter.



**SIMATIC RF630L**  
6GT2810-2AE83-0AX1

PET white, 105x25 mm, 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3") core diameter, 5 m range.

# SIMATIC RF600: SmartLabels

Passive and maintenance-free, they guarantee smooth operation.



**SIMATIC RF630L**  
6GT2810-2AE83-1AX0

PET white, 45x20mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF630L**  
6GT2810-2AB04-0AX1

Paper white, 4 x 2", 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, strongly adheres to plastic, printable, -25 °C to +80 °C, 76.2 mm (3") core diameter, 5 m range.



**SIMATIC RF642L**  
6GT2810-3AC00

PET, 50x22.5x1.6mm; 860 to 868 MHz/902 to 928 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, self-adhesive on metal/plastic, printable, -25 °C to 85 °C, 76.2 mm (3") core diameter, 4 m range.



**SIMATIC RF642L**  
6GT2810-3AC10

PET, 50x22.5x1.6mm; 860 to 868 MHz/902 to 928 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, self-adhesive on metal/plastic, printable, -25 °C to 85 °C, 76.2 mm (3") core diameter, 4 m range.



**SIMATIC RF682L**  
6GT2810-2AG84-0AX2

Nomex, 156x40x0.4mm, 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, for assembly, printable, -40 °C to 200 °C (short term 230 °C), stacked, no core diameter, 6 m range.