



# RFID

Radio Frequency Identification Systems

## PRODUCT GUIDE

High Frequency (HF)  
Ultra High Frequency (UHF)

# HIGH FREQUENCY INDUSTRIAL RFID

## HF ANTENNAS

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

### HIGHLIGHTS

- Any HF-ANT model can be used with any HF-CNTL model controller

### TECHNICAL DATA

- Operating temperature: -20 to 50°C
- Storage temperature: -40 to 85°C
- Compliance: FCC, CE
- Protection: IP65

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>HF-ANT-1010-01</b>	Read/Write range up to 25cm	112x100x6mm
<b>HF-ANT-2020-01</b>	Read/Write range up to 38cm	200x200x6mm
<b>HF-ANT-3030-01</b>	Read/Write range up to 45cm	300x300x6mm
<b>HF-ANT-0750-01</b>	Conveyor antenna	70x500x6mm



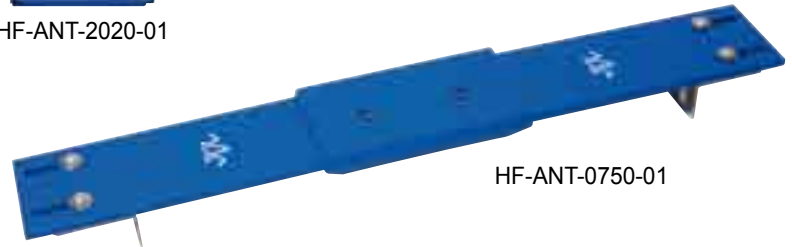
HF-ANT-3030-01



HF-ANT-2020-01



HF-ANT-1010-01



HF-ANT-0750-01

## C SERIES INTEGRATED HF CONTROLLER/ANTENNAS

### APPLICATIONS

- Automated pharmaceutical
- Packaging machines
- Electronics manufacturing
- Hard disk drive manufacturing
- Work-in-process
- Tool tracking

### HIGHLIGHTS

- Compact, integrated design
- C-Macro™ application builder
- Cobalt electronics platform
- Cobalt universal software

### TECHNICAL DATA

- Dimensions: 56x40x24mm (C0405 model)  
103x73x24mm (C1007 model)
- Power: 10-30Vdc
- Operating temp: -20 to 50°C
- Storage temperature: -40 to 85°C
- Air protocol: ISO15693; ISO14443A
- RF frequency: 13.56MHz
- Compliance: FCC, CE, TELEC
- Protection: IP66

### MODELS

	HIGHLIGHTS	CONNECTIVITY
<b>C0405-232</b>	Read/Write range up to 8cm	RS232 to 115.2Kbps
<b>C0405-485</b>	Read/Write range up to 8cm	RS485 with Subnet16
<b>C0405-USB</b>	Read/Write range up to 8cm	USB
<b>C1007-232</b>	Read/Write range up to 15cm	RS232 to 115.2Kbps
<b>C1007-485</b>	Read/Write range up to 15cm	RS485 with Subnet16
<b>C1007-USB</b>	Read/Write range up to 15cm	USB



C0405



C1007

# HIGH FREQUENCY INDUSTRIAL RFID

## COBALT HF CONTROLLERS

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

### HIGHLIGHTS

- Rugged, industrial design
- Read/Write to ISO15693 and ISO14443A tags
- C-Macro™ application builder
- Mix and match antennas
- Advanced electronics
- Universal software commands
- LED diagnostics

### TECHNICAL DATA

- Dimensions: 114x112x45mm  
164x112x45mm (PBS model)
- Power: 10-30Vdc
- Operating temperature: -20 to 50°C
- Storage temperature: -40 to 85°C
- Air protocol: ISO15693; ISO14443A
- RF frequency: 13.56MHz
- Compliance: FCC, CE
- Protection: IP65

### MODELS

	CONNECTIVITY
HF-CNTL-232	RS232 up to 115.2Kbps
HF-CNTL-485	Connect to Subnet16™
HF-CNTL-DNT	DeviceNet™ direct connection
HF-CNTL-IND	Direct Connect to TCP/IP, Ethernet/IP, Modbus/TCP.
HF-CNTL-PBS	Profibus™ direct connection
HF-CNTL-USB	USB connect to PC's



COBALT HF

## LRP HIGH TEMPERATURE ENCAPSULATED TAGS

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

### HIGHLIGHTS

- Extreme durability and resistance
- Easy to install
- Worldwide RFID Standard

### TECHNICAL DATA

- Storage temperature: -40 to +200°C
- User memory: 112 Bytes
- Air protocol: ISO15693

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>LRP125HTS</b>	Compact; range up to 23cm	Ø 25mm x 5mm
<b>LRP250HTS</b>	High performance	50mm <sup>2</sup> x 5mm
<b>LRP525HTS</b>	Pallet-mount; brackets included	127x50x5mm

## LRP STANDARD TEMPERATURE ENCAPSULATED TAGS

### APPLICATIONS

- Automotive assembling
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

### HIGHLIGHTS

- Range of sizes fit many applications
- Extreme durability and resistance
- Worldwide RFID Standard

### TECHNICAL DATA

- Storage temperature: -40 to +85°C
- User memory: 112 Bytes
- Air protocol: ISO15693

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>LRP108S</b>	Miniature tag	Ø 8mm x 5mm
<b>LRP125S</b>	Compact; range up to 23cm	Ø 25mm x 5mm
<b>LRP250S</b>	Long range up to 40cm	50mm <sup>2</sup> x 5mm
<b>LRP525S</b>	Pallet-mount; brackets included	127x50x5mm

## HMS SERIES HF INDUSTRIAL RFID TAGS

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Electric motor assembling
- Food processing
- Solar panel assembling
- Work-in-process tracking
- Equipment tracking
- Factory automation

### HIGHLIGHTS

- More memory than LRP-S
- Rugged
- Worldwide RFID Standard

### TECHNICAL DATA

- User memory: 736 Bytes
- Protection: IP67
- Air protocol: ISO14443A

### MODELS

HIGH TEMPERATURE ENCAPSULATED TAGS		
	HIGHLIGHTS	DIMENSIONS
<b>HMS125HT</b>	Very small HT tag	Ø 25mm x 5mm
<b>HMS150HT</b>	Ideal for paint lines	50mm <sup>2</sup> x 5mm
STANDARD TEMPERATURE ENCAPSULATED TAGS		
	HIGHLIGHTS	DIMENSIONS
<b>HMS108</b>	Miniature tag	Ø 8mm x 5mm
<b>HMS112</b>	Compact size	Ø 12mm x 5mm
<b>HMS125</b>	Easy to install	Ø 25mm x 5mm
<b>HMS150</b>	Best range	50mm <sup>2</sup> x 5mm



HMS150



HMS 108



LRP125HTS



LRP250HTS



LRP525HTS

# HIGH FREQUENCY INDUSTRIAL RFID

## PRINTED CIRCUIT BOARD TAGS

### APPLICATIONS

- Embed into products and product carriers

### HIGHLIGHTS

- Lower cost than encapsulated tags
- Range of sizes fit many applications
- Worldwide RFID Standard

### TECHNICAL DATA

- Storage temperature: -40 to +85°C
- User memory: 112 Bytes
- Air protocol: ISO15693

### MODELS

	APPLICATIONS	HIGHLIGHTS	DIMENSIONS
<b>LRP-P108S</b>	Device security and ID	Very small	Ø 7mm x 1.5mm
<b>LRP-P125S</b>	Embedded applications	Convenient size	Ø 22mm x 1.5mm
<b>LRP125VS</b>	Factory logistics	IP67 with 160C storage temperature	Ø 22mm x 3mm
<b>LRP-P3858S</b>	Door and furniture assembling	Longer Read/Write range	58x38x1.5mm
<b>LRP-P4020S</b>	Door and furniture assembling	Rectangular shape	40x20x1.5mm

## LRP ONE KILOBYTE MEMORY TAGS

### APPLICATIONS

- Automotive assembling
- Food processing
- Work-in-process tracking
- Equipment tracking
- Factory automation
- Electronics

### HIGHLIGHTS

- Very small tags with high memory
- Worldwide RFID Standard

### TECHNICAL DATA

- Storage temperature: -40 to +85°C
- User memory: 1000 Bytes
- Air protocol: ISO15693

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>LRP108I</b>	Very small size	Ø 8mm, 5mm
<b>LRP-P108I</b>	Embeddable PCB tag	Ø 7mm, 1.5mm
<b>LRP-P1212I</b>	Embeddable PCB tag	12mm <sup>2</sup> , 1.5mm

## T-SERIES, TWO-KILOBYTE METAL MOUNT TAGS

### APPLICATIONS

- Automotive assembling
- Food processing
- Work-in-process tracking
- Equipment tracking
- Factory automation
- Electronics

### HIGHLIGHTS

- Mount on or embed into metal
- High temperature resistance
- Easy to install
- Worldwide RFID Standard

### TECHNICAL DATA

- Storage temperature: -40 to +130°C
- User memory: 2000 Bytes FRAM
- Air protocol: ISO15693

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>T130</b>	Durable and compact	Ø 32mm, 10mm



LRP-P108S



LRP-P125S



LRP108I



T130



LRP-P1212I



LRP-P4020S



LRP125VS

# ULTRA-HIGH FREQUENCY INDUSTRIAL RFID

## COBALT UHF CONTROLLERS

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking
- Equipment tracking

### HIGHLIGHTS

- Rugged, industrial design
- Class 1, Gen 2 RFID Standard
- C-Macro™ application builder
- US (FCC) or EU (ETSI) frequency
- Advanced electronics
- Universal SW commands
- LED diagnostics

### TECHNICAL DATA

- Dimensions: 164x112x45
- Power: 10-30Vdc
- Operating temperature: -20 to 50°C
- Storage temperature: -40 to 85°C
- Protection: IP65

### MODELS

	CONNECTIVITY
<b>UHF-CNTL-232-XX US or EU</b>	RS232 up to 115.2Kbps
<b>UHF-CNTL-485-XX US or EU</b>	Connect to Subnet16™
<b>UHF-CNTL-IND-XX US or EU</b>	Direct Connect to Ethernet/IP, TCP/IP, Modbus TCP

## UHF ANTENNAS

### APPLICATIONS

- Use with Cobalt UHF Controllers

### HIGHLIGHTS

- Circular polarization supports many tag orientations
- High Front-to-Back signal ratio

### TECHNICAL DATA

- Operating temperature: -20 to 50°C
- Protection: IP67

### MODELS

	HIGHLIGHTS	DIMENSIONS
<b>UHF-ANT-3030-02-91 (US)</b>	FCC-approved frequency range	305x305x25mm
<b>UHF-ANT-2626-01-86 (EU)</b>	ETSI (EU) approved freq. range	260x260x30mm

## UHF TAGS

### APPLICATIONS

- Paint Lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking

### HIGHLIGHTS

- Class 1, Gen. 2 RFID Standard
- Survives high temperatures
- Rugged tag for harsh environments
- Extended user memory

### TECHNICAL DATA

- Dimensions: 127x50x5mm
- Storage temperature: 200°C
- User memory: 512Bits (64Bytes)
- RFID Standard: EPC C1G2

COBALT UHF



UHF-G2-525HT



UHF-ANT-3030

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking
- Equipment tracking

### HIGHLIGHTS

- Supports all Cobalt HF and UHF controllers with RS485 interface
- Greater connectivity for compact devices such as C0405 and C1007
- Supports the 16-Node Subnet16™ RS485 network
- Full range of IP-rated cables and accessories
- Plug-and-play node replacement
- LED diagnostics

### TECHNICAL DATA

- Dimensions: 89x76x32mm
- Protection: IP31
- Connectors: M12
- Power: 10-30Vdc
- Operating temperature: 0 to 50°C
- Enclosure: 304 stainless steel

### MODELS

	CONNECTIVITY
<b>GWY-01-TCP-01</b>	Connect to TCP/IP networks
<b>GWY-01-IND-01</b>	Connect to TCP/IP, Ethernet/IP and Modbus/TCP
<b>GWY-01-232-01</b>	Connect to RS232
<b>GWY-01-DNT-01</b>	Connect to DeviceNet

### APPLICATIONS

- Automotive assembling
- Paint lines
- Seat assembling
- Power trains
- Machine assembling
- Work-in-process tracking
- Equipment tracking

### HIGHLIGHTS

- Supports all Cobalt HF and UHF controllers with RS485 interface
- 4-Node Hub for network connection
- Local 4 INPUTS and 4 OUPUTS
- Full range of IP-Rated cables and accessories
- Plug-and-play node replacement
- LED diagnostics

### TECHNICAL DATA

- Dimensions: 185x89x32mm
- Protection: IP31
- Connectors: M12
- Power: 10-30Vdc
- Operating temperature: 0 to 50°C
- Enclosure: 304 stainless steel

### MODELS

	CONNECTIVITY
<b>HUB-04-TCP-01</b>	Connect to TCP/IP networks
<b>HUB-04-IND-01</b>	Connect to TCP/IP, Ethernet/IP and Modbus/TCP



HUB-04-TCP-01



GWY-01-IND-01

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