

BALLUFF

sensors worldwide

RFID



PRODUCT GUIDE

High Frequency (HF)
Ultra High Frequency (UHF)
Controllers
Antennas
Tags

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
HF-ANT-1010-01	Read/Write range up to 250mm on air	112x100x6mm
HF-ANT-2020-01	Read/Write range up to 380mm on air	200x200x6mm
HF-ANT-3030-01	Read/Write range up to 450mm on air	300x300x6mm
HF-ANT-0750-01	Metal mount conveyor antenna	70x500x6mm



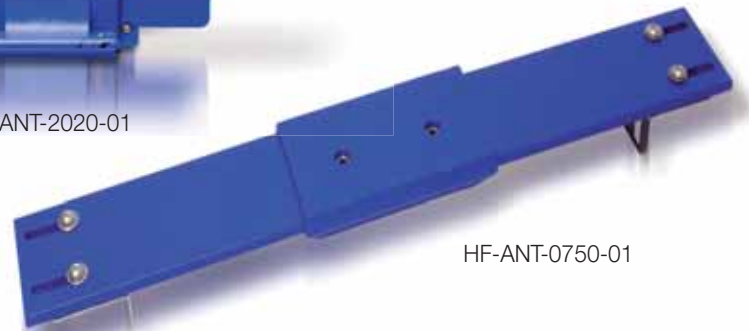
HF-ANT-3030-01



HF-ANT-2020-01



HF-ANT-1010-01



HF-ANT-0750-01

C SERIES INTEGRATED HF CONTROLLER/ANTENNAS

APPLICATIONS

- Pharmaceutical automation
- Packaging machines
- Electronics manufacturing
- Hard disk drive manufacturing
- Work-in-process
- Tool tracking

HIGHLIGHTS

- Compact, integrated design
- C-Macro™ application builder
- Cobalt electronics platform
- Datalogic standard software configuration interface

TECHNICAL DATA

- Dimensions: 56x40x24mm (C0405 model)
105x73x24mm (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: IP67



C0405

C1007

MODELS

	HIGHLIGHTS	CONNECTIVITY
C0405-232-01	Read/Write range up to 80mm on air	RS232 up to 115.2Kbps
C0405-485-01	Read/Write range up to 80mm on air	Connect to Subnet 16™
C0405-USB-01	Read/Write range up to 80mm on air	USB
C0405-422-01	Read/Write range up to 80mm on air	RS422 up to 115.2Kbps
C1007-232-01	Read/Write range up to 150mm on air	RS232 up to 115.2Kbps
C1007-485-01	Read/Write range up to 150mm on air	Connect to Subnet 16™
C1007-USB-01	Read/Write range up to 150mm on air	USB
C1007-422-01	Read/Write range up to 150mm on air	RS422 up to 115.2Kbps

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
- Interchangeable antennas
- Advanced electronics
- Datalogic standard software configuration interface
- 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-232-02	RS232 up to 115.2Kbps
HF-CNTL-232-12	RS232 up to 115.2Kbps and I/O connector
HF-CNTL-485-02	Connect to Subnet16™
HF-CNTL-485-12	Connect to Subnet16™ and I/O connector
HF-CNTL-DNT-02	DeviceNet™ direct connection
HF-CNTL-IND-02	Direct Connect to TCP/IP, Ethernet/IP, Modbus/TCP
HF-CNTL-IND-12	Direct Connect to TCP/IP, Ethernet/IP, Modbus/TCP and I/O connector
HF-CNTL-PBS-02	Profibus™ direct connection
HF-CNTL-PNT-02	Connect to Profinet

COBALT HF



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 models
- Advanced electronics
- Datalogic standard software configuration interface
- LED diagnostics

TECHNICAL DATA

- Dimensions: 164x112x45mm
- Power: 10-30Vdc
- Operating temperature: -20° to 50°C
- Storage temperature: -40° to 85°C
- Protection: IP65

MODELS

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

UHF ANTENNAS

APPLICATIONS

- Use with Cobalt UHF Controllers

HIGHLIGHTS

- Circular polarization to allow any tag orientation
- High Front-to-Back signal ratio

TECHNICAL DATA

- Operating temperature: -20° to 50°C

MODELS

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



UHF-ANT-3030



COBALT UHF

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
- Embed into products and product carriers
- Electronics
- Machine assembling

HIGHLIGHTS

- All tags are passive, durable and R/W
- Extreme durability and resistance under mechanical and thermal stress conditions
- Worldwide RFID Standard ISO15693, ISO14443A
- Range of sizes fits many applications
- Ruggedness Low cost
- Very small tags with high memory
- Mount on or embed into metal
- UHF Class 1, Gen. 2 RFID Standard
- Available in standard and high temperature version
- Rugged tags for harsh environments
- High user memory version (database on board)

PCB



ENC



HT



HF

PCB (printed circuit board)

ENC (encapsulated)

HT (high temperature)

Technical Data

	Temperature Range -55° to +140°C	Temperature Range -55° to +140°C	Temperature Range -55° to +240°C
112 Bytes NXP ICODE SLI ISO15693	LRP-P108S Ø 7mm x 1.5mm	LRP108S Ø 8mm x 5mm	
	LRP-P125S Ø 22mm x 1.5mm	LRP125S Ø 25mm x 5mm	LRP125HTS Ø 25mm x 5mm
	LRP125VS Ø 22mm x 3mm		
		HF-250S 51.5x51.5x6.5mm	HF-250HTS 51.5x51.5x6.5mm
	LRP-P3858S 58x38x1.5mm		
		LRP525S 128x52x11mm	LRP525HTS 128x52x11mm

	Temperature Range -55° to +125°C	Temperature Range -55° to +125°	Temperature Range -55° to +240°C
736 Bytes NXP Mifare ISO14443A		HMS108 Ø 8mm x 5mm	
		HMS112 Ø 12mm x 5mm	
	HMS-P125 Ø 22mm x 1.5mm	HMS125 Ø 25mm x 5mm	HMS125HT Ø 25mm x 5mm
		HMS150 Ø 50mm x 5mm	HMS150HT Ø 50mm x 5mm

	Temperature Range -40° to +125°C	Temperature Range -40° to +125°C	Temperature Range -40° to +240°C
1 KBytes Infineon ISO15693	LRP-P108I Ø 7mm x 1.5mm	LRP108I Ø 8mm x 5mm	
	LRP-P1212I 12x12x1.5mm		
		HF-250I 51.5x51.5x6.5mm	HF-250HTI 51.5x51.5x6.5mm

	Temperature Range -40° to +85°C	Temperature Range -40° to +85°C
2 KBytes Fujitsu ISO15693	HF-108PF Ø 7mm x 1.5mm	
		HF-250F 51.5x51.5x6.5mm
		T130 Ø 30mm x 10mm

UHF

PCB (printed circuit board)

ENC (encapsulated)

HT (high temperature)

Technical Data

	Temperature Range -55° to +125°C	Temperature Range -55° to +240°C
512 Bits NXP UCODE G2XM EPC-C1G2		UHF-G2-250HT 51.5x51.5x6.5mm
	UHF-G2-250 51.5x51.5x6.5mm	UHF-G2-525HT 128x52x11mm
	UHF-G2-525 128x52x11mm	

APPLICATIONS

- Automotive assembling
- Paint lines
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- Equipment tracking

HIGHLIGHTS

- Supports up to 16 Cobalt HF, UHF or C-Series controllers
- Extends connectivity for compact devices such as C0405 and C1007
- Supports the 16-Node Subnet16™ 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: 10-30 Vdc by net
- Operating temperature: 0° to 50°C
- Enclosure: 304 stainless steel

MODELS

	CONNECTIVITY
GWY-01-TCP-01	Connect to TCP/IP networks
GWY-01-IND-01	Connect to TCP/IP, Ethernet/IP and Modbus/TCP
GWY-01-232-01	Connect to RS232
GWY-01-DNT-01	Connect to DeviceNet™
GWY-01-PBS-01	Connect to Profibus

APPLICATIONS

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

HIGHLIGHTS

- Supports up to 4 Cobalt HF, UHF or C-Series controllers
- Four local inputs and outputs available for controlling with plugged controllers
- 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
HUB-04-TCP-01	Connect to TCP/IP networks
HUB-04-IND-01	Connect to TCP/IP, Ethernet/IP and Modbus/TCP



HUB-04-TCP-01



GWY-01-232-01

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