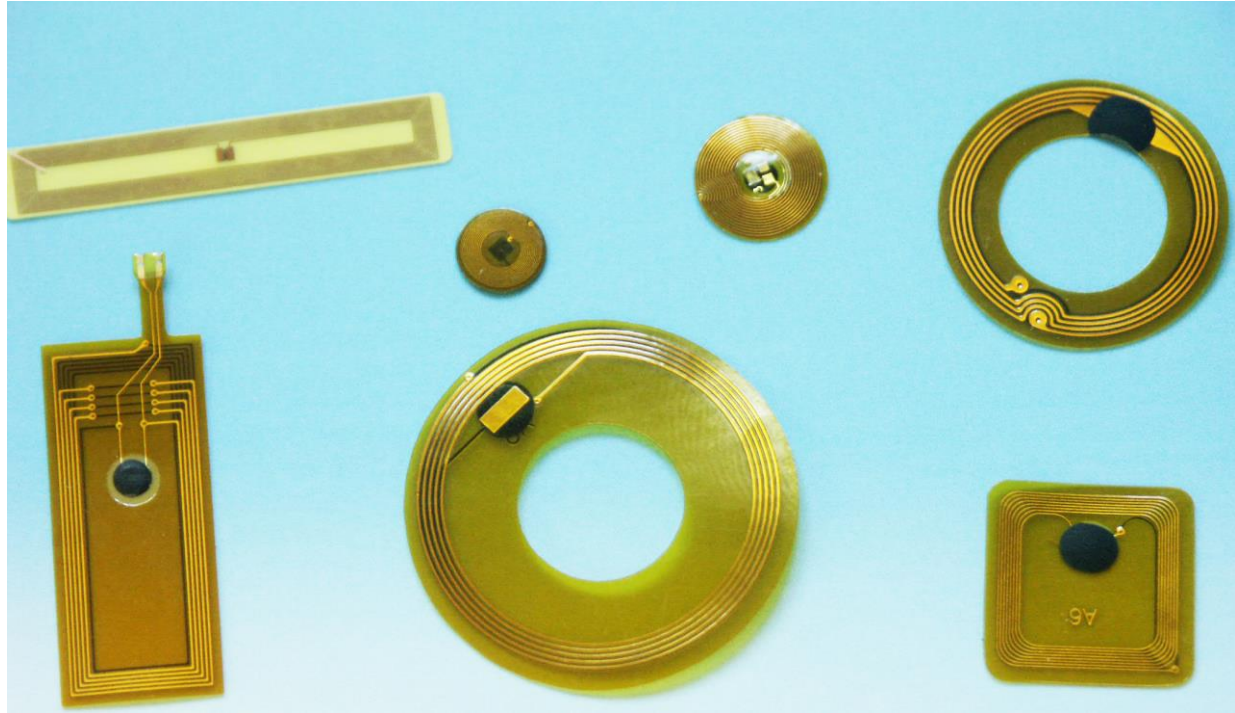


High Frequency 13.56 MHz Data Sheet

FPC Ario Style Tags

Model HF-1500 Series

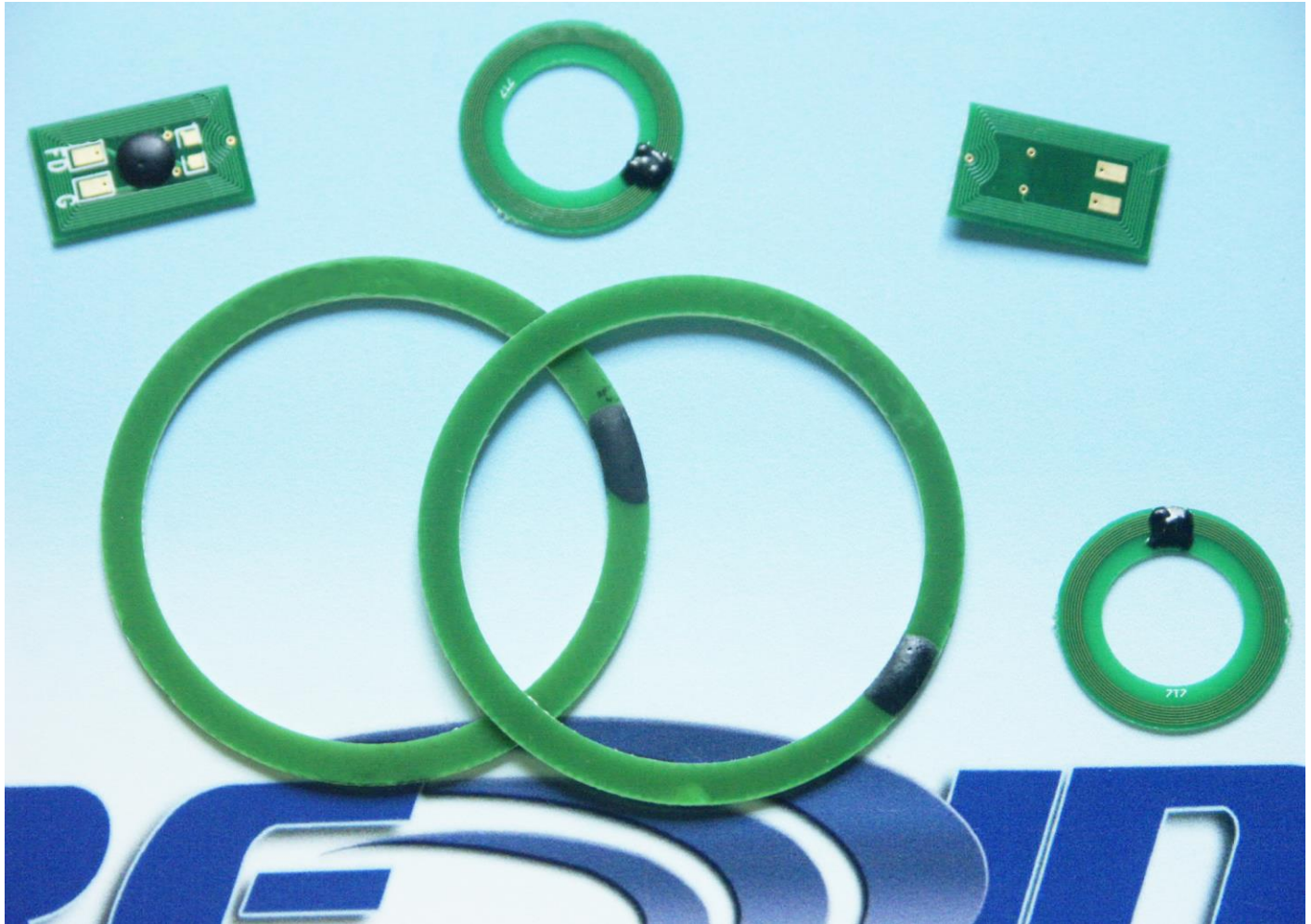


| | | | |
|------------------------|--|---|---------------------------------|
| Specifications: | Dimensions: | 7.6mm diameter x 1mm 9mm diameter x 1mm 5mm x 5mm x 1mm 14mm x 14mm x 1mm 25mm x 10mm x 1mm 30mm x 5mm x 1mm 19mm diameter OD x 11mm ID 26mm diameter OD x 10mm ID | Custom Sizes Available |
| | All Tags measure less than 1mm in height | | |
| | Material: | Substrate: PET (Polyester Film) Antenna: Copper Etching | FPC Option Peel & Stick Backing |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| Ingress Protection: | IP-67 | | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|---------------------------------|--------------|---------------|
| | PET 7.6mm diameter Ario Tag | HF-1500-7.6 | 850-0003-7.6 |
| | PET 9mm diameter Ario 370-S Tag | HF-1500-9 | 850-0003-09 |
| | FPC 5mm x 5mm Ario Tag | HF-1500-0505 | 850-0003-0505 |
| | PET 14mm x 14mm Ario SM Style | HF-1500-1414 | 850-0003-1414 |
| | PET 25mm x 10mm Ario Tag | HF-1500-2510 | 850-0003-2510 |
| | PET 30mm x 5mm Ario Tag | HF-1500-3005 | 850-0003-3005 |
| | PET 19mm dia w/11mm center | HF-1500-19 | 850-0003-19 |
| | PET 26mm dia. w/10mm center | HF-1500-26 | 850-0003-26 |

PCB/FR4 Tags

Model HF-1501 Series



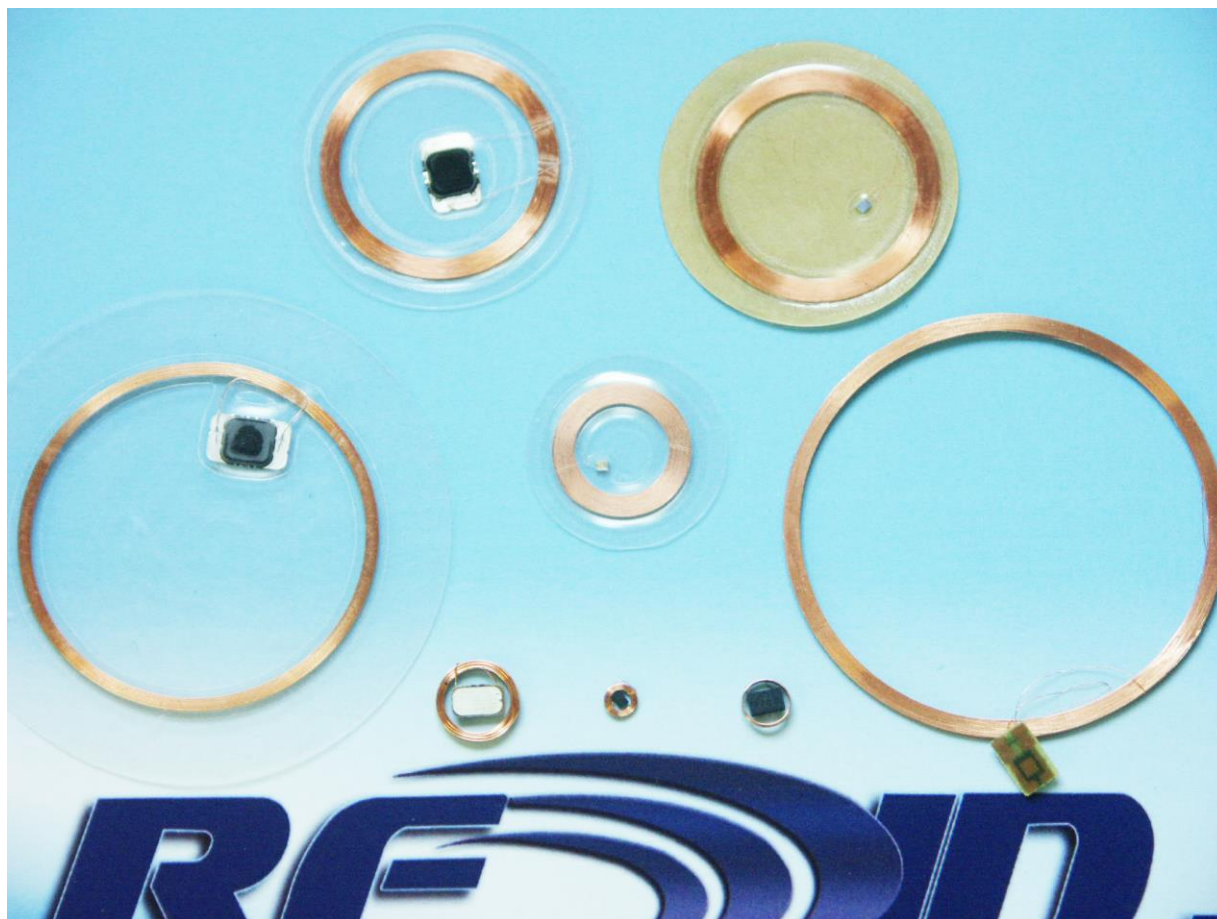
| | | | |
|------------------------|------------------------|---|------------------------|
| Specifications: | Dimensions: | 16mm dia. OD x 10mm ID x 1mm 38mm dia. OD x 32mm ID x 1mm 20mm x 10mm x 1mm | Custom Sizes Available |
| | Material: | PCB FR4, etched coil | |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|-----------------------|---------------|---------------|
| | PCB/FR4 16mm Ring Tag | HF-1501-16 | 850-0001-16 |
| | PCB/FR4 38mm Ring Tag | HF-1501-38 | 850-0001-38 |
| | PCB/FR4 20x10mm Tag | HF-1501-20x10 | 850-0001-2010 |



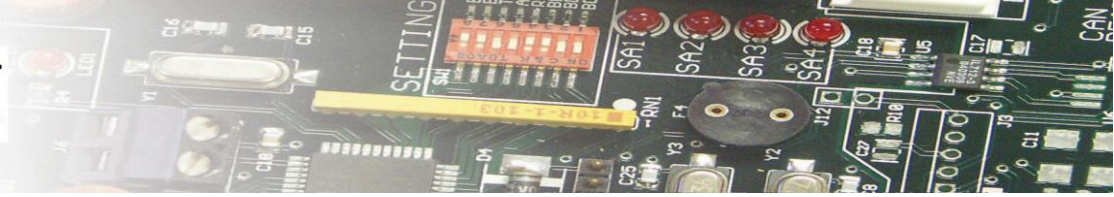
Air Coil & Clear Laminate Tags

Model HF-1502 Series



| | | | |
|------------------------|------------------------|--|-----------------------------|
| Specifications: | Dimensions: | 3mm, 5mm, 9mm, 20mm 30mm, 44mm, 50mm diameter | Custom Sizes Available |
| | Material: | Copper Coil + PCB Module Laminate Film where applicable | Option Peel & Stick Backing |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|--------------------|----------------------------------|---------------|----------------|
| P/S = Peel & Stick | Air Coil 3mm diameter | HF-1502-03 | 850-0002-03 |
| | Air Coil 5mm diameter | HF-1502-05 | 850-0002-05 |
| | Air Coil 9mm diameter | HF-1502-09 | 850-0002-09 |
| | Air Coil 44mm diameter | HF-1502-44 | 850-0002-44 |
| | Clear Laminate 20mm diameter | HF-1502-20 | 850-0002-20 |
| | Clear Laminate 20mm P/S diameter | HF-1502-20P/S | 850-0002-20P/S |
| | Clear Laminate 30mm diameter | HF-1502-30 | 850-0002-30 |
| | Clear Laminate 30mm P/S diameter | HF-1502-30P/S | 850-0002-30P/S |
| | Clear Laminate 50mm diameter | HF-1502-50 | 850-0002-50 |
| | Clear Laminate 50mm P/S diameter | HF-1502-50P/S | 850-0002-50P/S |

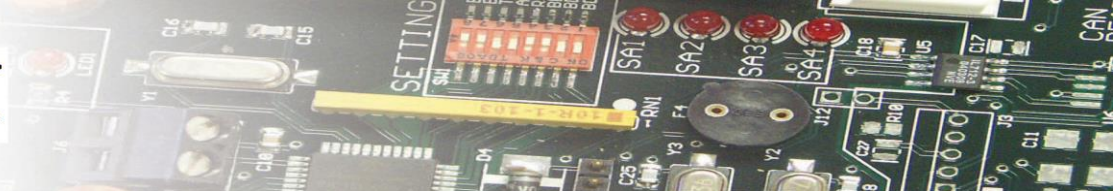


Inlays or Printable Thermal Transfer Labels

Model HF-1503 Series

| | | | |
|------------------------|------------------------|--|--|
| Specifications: | Dimensions: | See Table Below | Custom Sizes Available |
| | Material: | PET (Polyester Film) Substrate Coated Paper | Thermal Transfer RFID Label with Acrylic Adhesive |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |

| Coil Size | Wet Inlay Size | Label Size | Photo (Deliverable on Rolls or Sheets) | Part Number Add -LB for Label Format |
|-----------|----------------|------------|---|--|
| | | | Circular | |
| 12mm | 14mm | 16mm | | 850-0103-12 |
| 18mm | 20mm | 22mm | | 850-0103-18 |
| 20mm | 22mm | 24mm | | 850-0103-20 |
| 22mm | 24mm | 26mm | | 850-0103-22 |
| 23mm | 25mm | 27mm | | 850-0103-23 |
| 24mm | 26mm | 28mm | | 850-0103-24 |
| 25mm | 27mm | 30mm | | 850-0103-25 |
| 36mm | 38mm | 40mm | | 850-0103-26 |
| 40mm | 42mm | 44mm | | 850-0103-40 |
| 111mm | 113mm | 115mm | | 850-0103-111 |
| | | | Square | |
| 15mm sq. | 17mm | 19mm | | 850-0103-15SQ |
| 26mm sq. | 28mm | 30mm | | 850-0103-26SQ |
| 45mm sq. | 47mm | 49mm | | 850-0103-45SQ |
| 47mm sq. | 49mm | 51mm | | 850-0103-47SQ |
| 50mm sq. | 52mm | 54mm | | 850-0103-50SQ |
| | | | Rectangular | |
| 17x9mm | 19x11 | 21x13 | | 850-0103-1911 |
| 18x8mm | 20x10 | 22x12 | | 850-0103-2010 |
| 20x15mm | 22x17 | 24x19 | | 850-0103-2015 |
| 32x15mm | 34x17 | 36x19 | | 850-0103-3215 |
| 38x23mm | 40x25 | 42x27 | | 850-0103-3823 |
| 40x25mm | 42x27 | 44x29 | | 850-0103-4025 |
| 50x30mm | 52x32 | 54x34 | | 850-0103-5030 |
| 50x40mm | 52x42 | 54x44 | | 850-0103-5040 |
| 52x15mm | 54x17 | 56x19 | | 850-0103-5215 |
| 76x45mm | 78x47 | 80x49 | | 850-0103-7645 |
| 86x54mm | 88x56 | 90x58 | | 850-0103-8654 |



Metal Mount Label & PVC Tags

Model HF-1504 Series

NOTE: Most all Tags can be manufactured to be Metal Mount, please inquire.



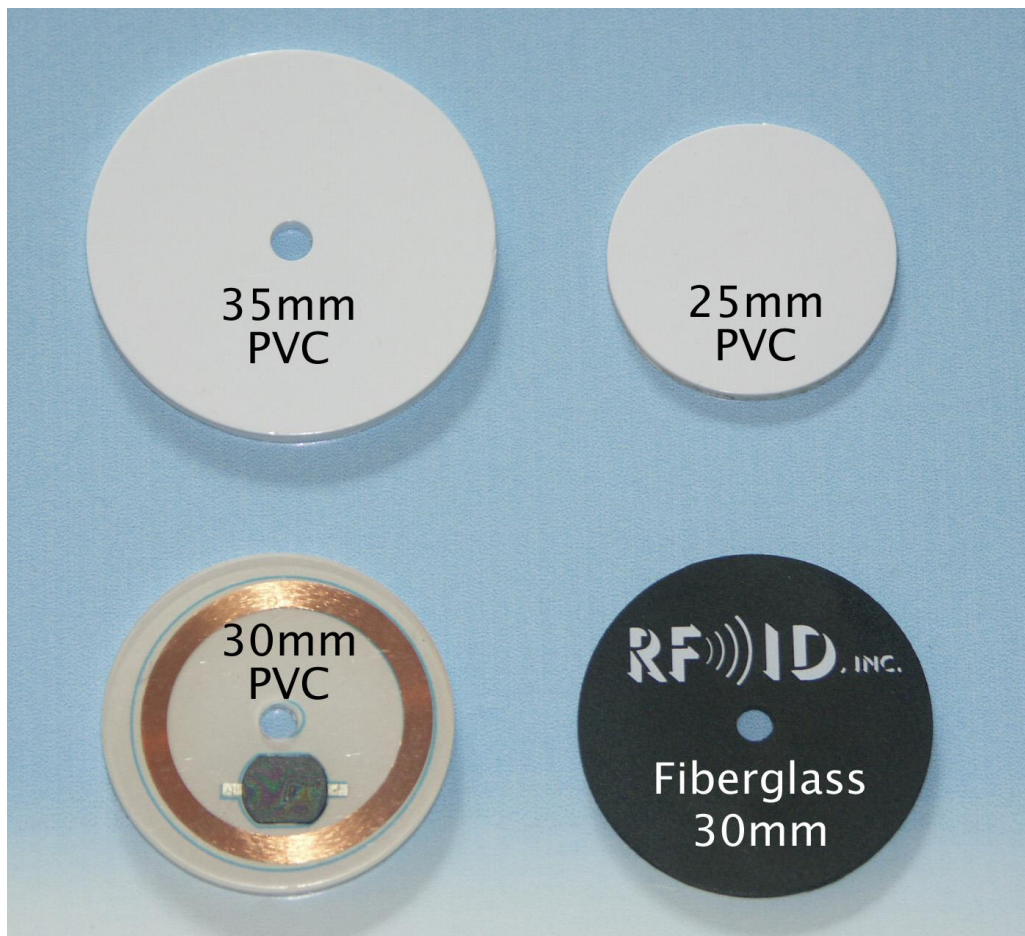
| | | | |
|------------------------|------------------------|--|------------------------|
| Specifications: | Dimensions: | 25mm diameter x 1mm 30mm square x 1mm 40mm x 25mm 65mm x 25mm (PVC) | Custom Sizes Available |
| | Material: | PET + Ferrous backing PVC Laminate + Ferrous backing | Peel & Stick Backing |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|---------------------------------|--------------|---------------|
| | Metal Mount PET Label 25mm dia. | HF-1504-25 | 850-0104-25 |
| | Metal Mount PET Label 30mm sq. | HF-1504-3030 | 850-0104-3030 |
| | Metal Mount PET Label 40x25mm | HF-1504-4025 | 850-0104-4025 |
| | Metal Mount PVC 65x25mm | HF-1504-6525 | 850-0104-6525 |



PVC Laminate & Fiberglass Disc Tags

Model HF-1561 Series



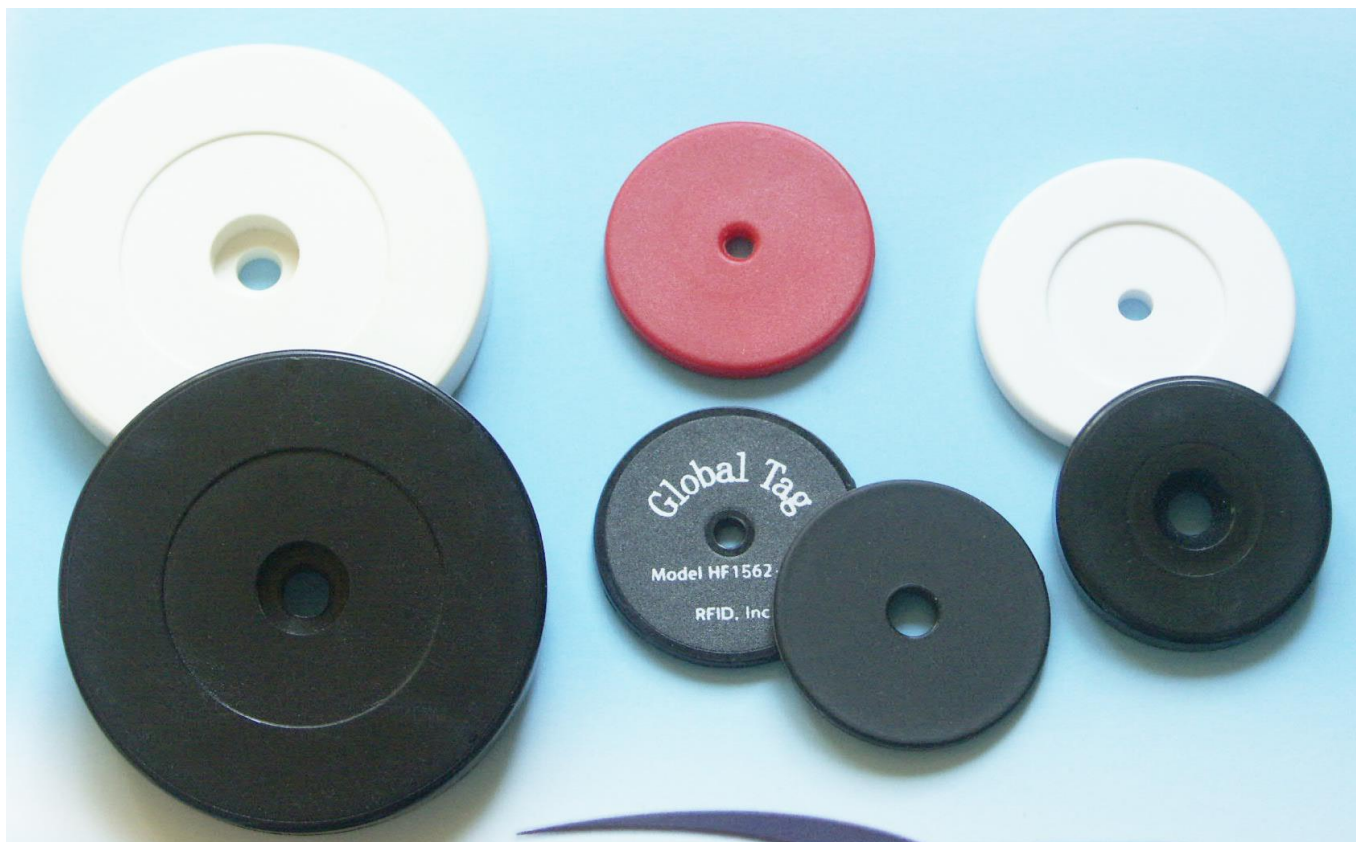
| | | | |
|------------------------|------------------------|---|---|
| Specifications: | Dimensions: | 25mm x 1mm 30mm x 2mm 35mm x 2mm 30mm x 1mm (Fiberglass) | Custom Sizes Available Option Peel & Stick Backing |
| | Material: | PVC Laminate (white) | Fiberglass (black) |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-68 | |

| Part Numbering | Description | Model Number | Part Number |
|--------------------|----------------------------------|----------------|----------------|
| P/S = Peel & Stick | PVC Laminate, 25mm | HF-1561-25 | 850-0006-25 |
| | PVC Laminate, 25mm P/S | HF-1561-25-P/S | 850-0006-25P/S |
| | PVC Laminate, 30mm w/center hole | HF-1561-30 | 850-0006-30 |
| | PVC Laminate, 30mm w/hole P/S | HF-1561-30-P/S | 850-0006-30P/S |
| | PVC Laminate, 35mm w/center hole | HF-1561-35 | 850-0006-35 |
| | PVC Laminate, 35mm w/hole P/S | HF-1561-35-P/S | 850-0006-35P/S |
| | Fiberglass, 30mm w/center hole | HF-1561-FG30 | 850-0006-FG30 |



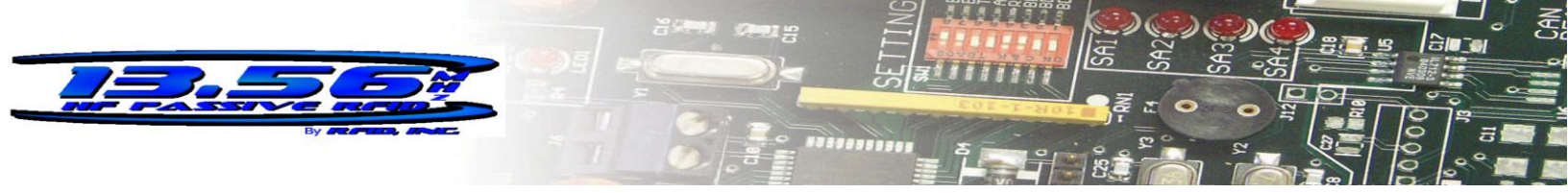
ABS & Polycarbonate Disc Tags

Model HF-1562 Series



| | | | |
|------------------------|------------------------|--|----------------------------|
| Specifications: | Dimensions: | 20mm x 4mm 30mm x 2mm w/4mm hole 30mm x 2.5mm w/5mm hole 30mm x 5mm w/5mm hole 35mm x 4mm w/4mm hole 36mm x 4mm w/4mm hole 50mm x 8mm w/5mm hole | Custom Sizes Available |
| | Material: | ABS - Sonically Welded | Polycarbonate - Global Tag |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|--------------------------------|----------------|-----------------|
| | 20mm x 4mm ABS Disc | HF-1562-20 | 850-0007-20 |
| | 30mm Global Tag, Polycarbonate | HF-1562-30-GL | 850-0007-30GL |
| | 30mm x 2.5mm PA6 Disc Tag | HF-1562-30-PA6 | 850-0007-30-PA6 |
| | 30mm x 5mm ABS Disc Tag | HF-1562-30 | 850-0007-30 |
| | 35mm x 4mm ABS Disc Tag | HF-1562-35 | 850-0007-35 |
| | 36mm x 4mm ABS Disc Tag | HF-1562-36 | 850-0007-36 |
| | 50mm x 8mm ABS Disc Tag | HF-1562-50 | 850-0007-50 |



Keyfobs

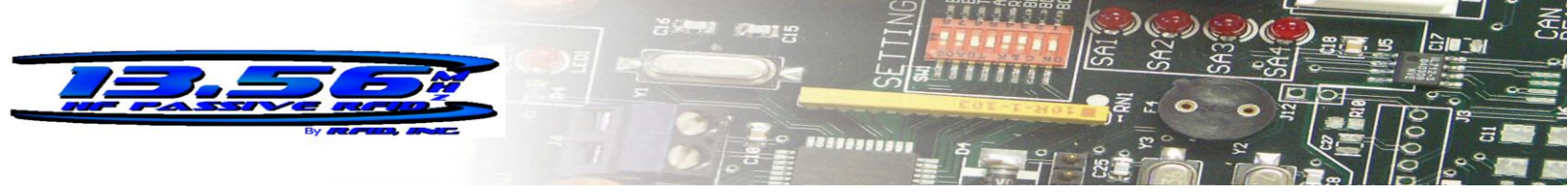
Model HF-1568 Series



| | | | |
|------------------------|------------------------|-----------------------|---|
| Specifications: | Material: | See Description Below | Customized graphics or logo when applicable |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-65 to P-68 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|-----------------------------|------------------------------|-------------------------------|
| | 1 Fiberglass Keyfob | HF-1568-01-RED or -BLK | 850-0100-01-RED or -BLK |
| | 2 Epoxy Rectangle Small | HF-1568-02S | 850-0100-02S |
| | 2 Epoxy Rectangle Medium | HF-1568-02M | 850-0100-02M |
| | 3 Baseball Bat, ABS | HF-1568-03 | 850-0100-03 |
| | 4 Leather Keyfob | HF-1568-04-RED or -BLK -GRN | 850-0100-04-RED or -BLK -GRN |
| | 5 Aquatic Keyfob, ABS | HF-1568-05-BLU or -RED | 850-0100-05-BLU or -RED |
| | 6 Teardrop Keyfob, ABS | HF-1568-06-(assorted colors) | 850-0100-06 (assorted colors) |
| | 7 Epoxy Surfboard Keyfob | HF-1568-07 | 850-0100-07 |
| | 8 Arch Keyfob, PVC Laminate | HF-1568-08 | 850-0100-08 |





ISO Cards - Personnel Badges

Model HF-1570 Series



Photographed is ISO Card with Top Slot

| | | | |
|------------------------|------------------------|------------------------|-------------------|
| Specifications: | Dimensions: | ISO Card - 86mm x 54mm | |
| | Material: | PVC, Laminate | Optional Printing |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|-----------------------|--------------------------|---------------------|--------------------|
| | ISO Card - No Slot | HF-1570-NS | 850-0114-NS |
| | ISO Card - Top Slot | HF-1570-TS | 850-0114-TS |
| | ISO Card – Side Slot | HF-1570-SS | 850-0114-SS |
| | ISO Card - MS - RW | HF-1570-HID-NS | 850-0114-HID-NS |
| | ISO Card - Top Slot - RO | HF-1570-HID-TS | 850-0114-HID-TS |
| | ISO Card - Top Slot - RW | HF-1570-HID-SS | 850-0114-HID-SS |



Wrist Band Tags

Model HF-1571 Series

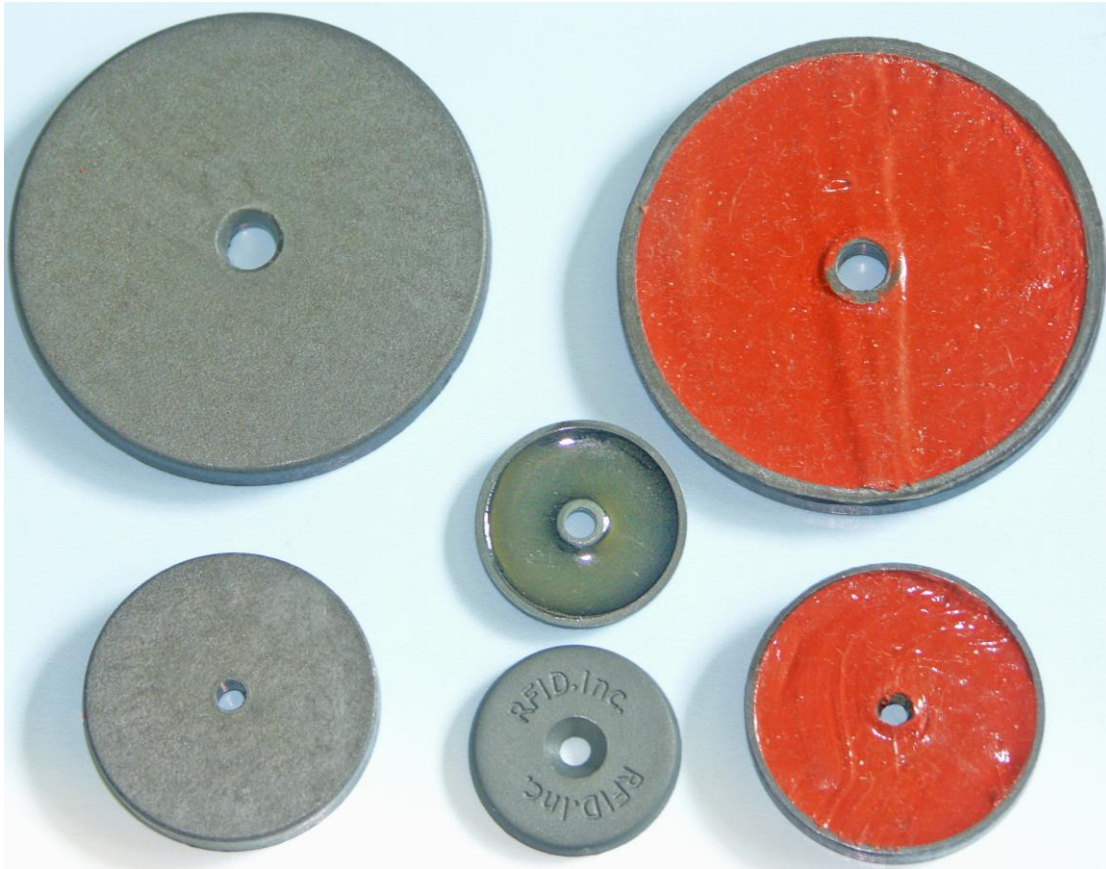


| | | | |
|------------------------|------------------------|-------------------------------|--------------------|
| Specifications: | Material: | Soft Silicon Rubber | ABS w/Velcro Strap |
| | | PVC (disposable patient band) | ABS w/Watch Strap |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-67 | |

| Part Numbering | Description | Model Number | Part Number |
|---------------------------|-----------------------------|-----------------|------------------|
| Add -Color to Part Number | Wristband, Patient Style | HF-1571-PS | 850-0110-PS |
| | Wristband, Silicon Slip On | HF-1571-SS | 850-0110-SS |
| | Wristband, Silicon w/Hasp | HF-1571-SH | 850-0110-SH |
| | Wristband, ABS w/Velcro | HF-1571-ABS-VL | 850-0110-ABS-VL |
| | Wristband, ABS, Nylon, Hasp | HF-1571-ABS-NYL | 850-0110-ABS-NYL |

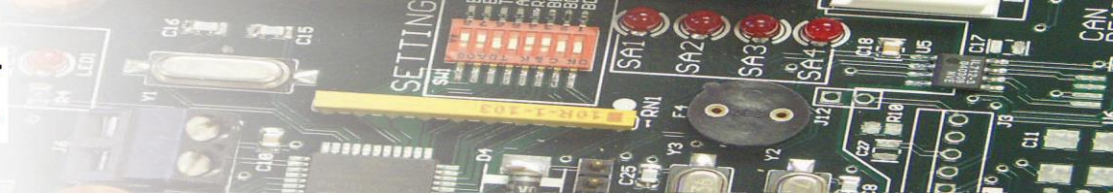
High Temperature Tags

Model 1772 Series



| | | | |
|------------------------|---|---|------------------|
| Specifications: | Dimensions: | 22mm x 3mm w/3mm center 30mm x 5.8mm w/3mm center 50.2mm x 5.8mm w/5mm center | Countersunk Hole |
| | Material: | Proprietary | |
| | Storage Temperature 30 & 50mm Tags w/red fill: | -40°F to 482°F | -40°C to +250°C |
| | Operating Temperature 30 & 50mm Tags w/red fill: | -40°F to +446°F 15 hours 1x or 30 minute cycles | -40°C to +230°C |
| | Storage Temperature 22mm Tag w/black fill: | -40°F to +365°F | -40°C to +185°C |
| | Operating Temperature 22mm Tag w/black fill: | -40°F to +365°F Indefinite | -40°C to +185°C |
| | Ingress Protection: | IP-68 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|------------------------|--------------|-------------------|
| | 22mm, Black | HF-1572-22HT | 850-0074-22-CS-HT |
| | 30mm, Black w/red fill | HF-1572-30HT | 850-0074-30HT |
| | 50mm, Black w/red fill | HF-1572-50HT | 850-0074-50HT |



Glass Ampoule Tags

Model HF-1575 Series

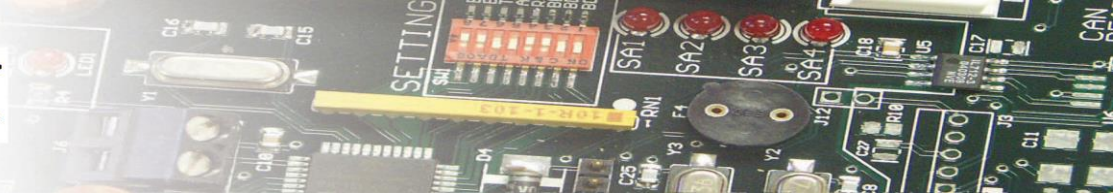


Depicted is 3 x 13 mm

| | | | |
|---------------------|------------------------|-----------------------------------|------------------------|
| Environment: | Dimensions: | 2x12mm, 3x13mm, 4x20mm, 3x34mm | Custom Sizes Available |
| | Material: | Glass | |
| | Storage Temperature: | -40°F to 185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| | Ingress Protection: | IP-68 | |

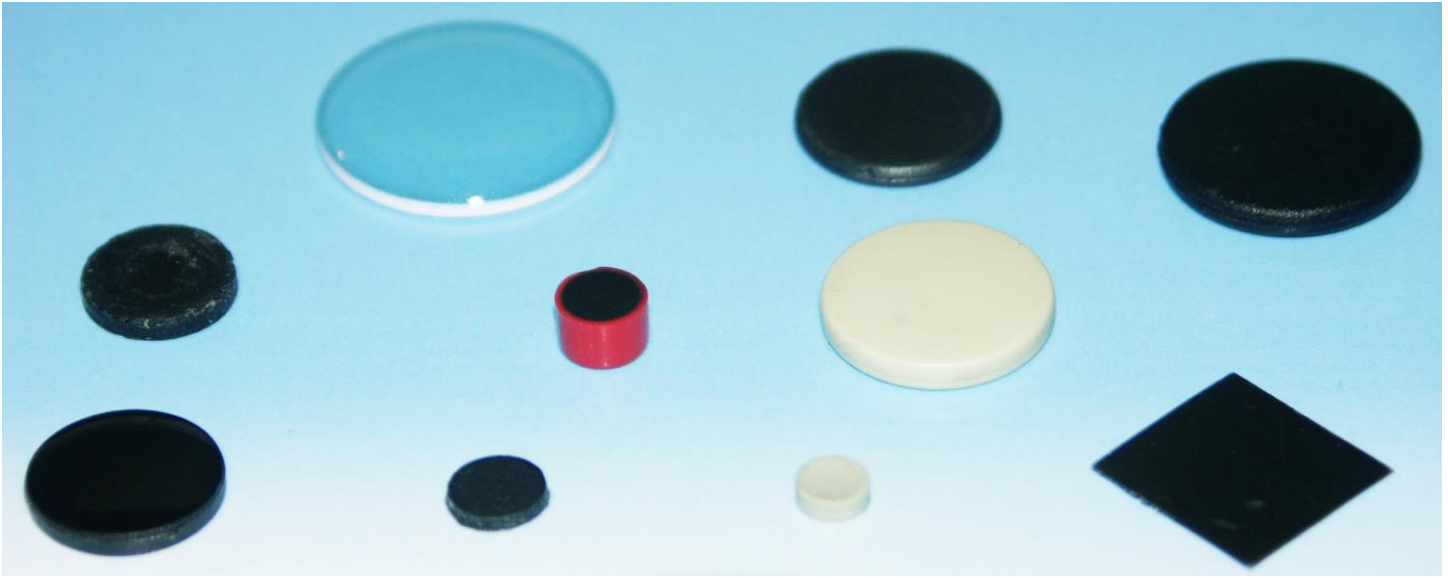
| Part Numbering | Description | Model Number | Part Number |
|----------------|----------------------|--------------|--------------|
| | 2x12mm Glass Ampoule | HF-1575-212 | 850-0073-212 |
| | 3x13mm Glass Ampoule | HF-1575-313 | 850-0073-313 |
| | 4x20mm Glass Ampoule | HF-1575-420 | 850-0073-420 |
| | 3x34mm Glass Ampoule | HF-1575-334 | 850-0073-334 |





Small Diameter, Unique, & Laundry Tags

Model 1579 Series



| | | | |
|-----------------------------|---------------------------|--|--|
| Specifications: | Laundry Tag - Dimensions: | 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 20, 22, 24, 26, 28mm dia. x 2mm | PPS + Epoxy |
| | Storage Temperature: | -40°F to +248°F indefinite -40°C to +320°F 30 min-200x -40°C to +392°F 30 sec-200x | -40°C to +120°C indefinite -40°C to +160°C 30 min-200x -40°C to +200°C 30 sec-200x |
| | Operating Temperature: | -40°F to +185°F | -40°C to +85°C |
| | Ingress Protection: | IP-68 | |
| | Water Pressure: | 300 Bars - 5 minutes | 45 Bars - 10 hours |
| | Compression Strength: | Axial 1000 N - 10 seconds | Radial 1000 N - 10 seconds |
| | Pill Tags | 5mm & 13mm diameter x 2mm | PPS + Epoxy, IP-68 |
| | Orange Tea Cup Tag | 6mm tall x 4mm diameter | PBT with Epoxy, IP-68 |
| | Soft Epoxy Tags | 6mm & 10mm diameter x 2mm | Pliable Epoxy, IP65 |
| Potted Dome Tag, Light Blue | 20mm x 2mm | Potted Epoxy, IP-68 | |
| Square Epoxy Tag | 13mm x 1mm | Rigid Potted Epoxy, IP-68 | |

| Part Numbering | Description | Model Number | Part Number |
|----------------|-------------------------------|-----------------|------------------|
| | Laundry Tag, xx = diameter | HF-1579-LDxx | 850-0113-LDxx |
| | Pill Tag, 5mm | HF-1579-PL05 | 850-0113-PL05 |
| | Pill Tag, 13mm | HF-1579-PL13 | 850-0113-PL13 |
| | Orange Tea Cup Tag | HF-1579-TC | 850-0113-TC |
| | Soft Epoxy Tag, 6mm | HF-1579-SE06 | 850-0113-SE06 |
| | Soft Epoxy, 10mm | HF-1579-SE10 | 850-0113-SE10 |
| | Potted Dome, Light Blue, 20mm | HF-1579-PD20-LB | 850-0113-PD20-LB |
| | Square Epoxy, 13mm | HF-1579-SQE13 | 850-0113-SQE13 |



Transponder Memory – ISO Standards – 15693 – 14443A – 14443B

Note the **RFID PN Suffix**. Append this to any Tag part number to specify a particular chip.

Pricing: Given the large number of chips available on the market and the many different Tag form factor options, we maintain no static price list. Quotes are provided on a project basis.

| Manufacturer & Chip | Memory | ISO Protocol | PN Suffix |
|---------------------|------------|--------------|-----------|
| ATMEL | | | |
| AT88RF020 | 2kb | 14443B | -16 |
| AT88SC0104CRF | 1kb | 14443B | -17 |
| AT88SC0204CRF | 2kb | 14443B | -18 |
| AT88SC0404CRF | 4kb | 14443B | -19 |
| AT88SC3216CRF | 32kb | 14443B | -20 |
| AT88SC1616CRF | 16kb | 14443B | -21 |
| AT88SC0808CRF | 8kb | 14443B | -22 |
| AT88SC6416CRF | 64kb | 14443B | -23A |
| AT88SC118 | 64kb | 14443B | -23B |
| EM | | | |
| EM4033 | 64 bits | 15693 | -05A |
| EM4133 | 448 bits | 15693 | -05B |
| EM4233 | 2kb | 15693 | -05 |
| EM4233SLIC | 1kb | 15693 | -05C |
| EM4237 | 2kb | 15693 | -05D |
| EM4237SLIC | 1kb | 15693 | -05E |
| EM4237SLIX | 2kb | 15693 | -05F |
| EM4333 | 4kb | 15693/14443A | -05G |
| EM4423 | 1920 bits | 14443A/Gen2 | -05H |
| FUJITSU | | | |
| MB89R118 | 2KB | 15693 | -08A |
| MB89R119 | 256 bytes | 15693 | -08B |
| MB89R112A/B | 8KB | 15693 | -08C |
| INFINEON | | | |
| my-d SLE 66R01L | 48KB | 14443A | -03A |
| my-d SLE 66R01P | 128 Bytes | 14443A | -03B |
| my-d NFC SLE 66R32P | 5120 Bytes | 14443A | -03C |
| my-d NFC SLE 6R16P | 5120 Bytes | 14443A | -03D |
| my-d SLE 66R32S | 4KB | 14443A | -03E |
| my-d SLE 66R16S | 2KB | 14443A | -03F |
| my-d SLE 66R04S | 576 Bytes | 14443A | -03G |
| my-d SRF55V02P | 232 Bytes | 15693 | -03H |
| my-d SRF55V10P | 1KB | 15693 | -03I |
| my-d SRF55V02S | 224 Bytes | 15693 | -03J |
| my-d SRF55V10S | 992 Bytes | 15693 | -03K |
| SLE66R35 | 1KB | 14443A | -03L |

| Manufacturer & Chip | Memory | ISO Protocol | PN Suffix |
|--------------------------|-----------|--------------|-----------|
| PHILIPS NXP | | | |
| ICODE SLIX-L | 256 bits | 15693 | -04XL |
| ICODE SLI | 896 bits | 15693 | -04 |
| ICODE SLIX | 896 bits | 15693 | -04X |
| ICODE SLIX 2 | 2528 bits | 15693 | -04X2 |
| ICODE SLI-S | 1280 bits | 15693 | -04S |
| ICODE SLIX-S | 1280 bits | 15693 | -04XS |
| ICODE DNA | 2kb | 15693 | -04DNA |
| MIFARE UL Nano | 40 Bytes | 14443A | -10ULN |
| MIFARE UL EV1 | 128 Bytes | 14443A | -10UL1 |
| MIFARE UL C | 144 Bytes | 14443A | -10ULC |
| MIFARE Classic EV1 S50 | 1kb | 14443A | -13N |
| MIFARE Classic EV4 S70 | 4kb | 14443A | -13 |
| MIFARE DESFire EV1 | 2/4/8KB | 14443A | -10DE1 |
| MIFARE DESFire EV2 | 2/4/8KB | 14443A | -10DE2 |
| MIFARE Plus S | 2/4KB | 14443A | -10PS |
| MIFARE Plus SE | 1KB | 14443A | -10PSE |
| MIFARE Plus X | 2/4KB | 14443A | -10PX |
| MIFARE Plus EV1 | 2/4KB | 14443A | -10P1 |
| MIFARE NTAG 210 | 48 Bytes | 14443A | -10N210 |
| MIFARE NTAG 212 | 128 Bytes | 14443A | -10N212 |
| MIFARE NTAG 213 | 144 Bytes | 14443A | -10N213 |
| MIFARE NTAG 215 | 504 Bytes | 14443A | -10N215 |
| MIFARE NTAG 216 | 888 Bytes | 14443A | -10N216 |
| STM | | | |
| SRT512 | 512 bits | 14443B | -16A |
| SRI2K | 2kb | 14443B | -16B |
| SRI4K | 4kb | 14443B | -16C |
| ST25TA02K | 2kb | 14443A | -16D |
| ST25TA512 | 512 bits | 14443A | -16E |
| ST25TA16K | 16kb | 14443A | -16F |
| ST25TA64K | 64kb | 14443A | -16G |
| ST25TV | 64kb | 15693 | -16H |
| LRI2K | 2kb | 15693 | -16I |
| LRI564K | 64kb | 15693 | -16J |
| TAGSYS | | | |
| Ario 370S-SDM | 1280 bits | 15693 | -04S |
| Ario 370S-SM | 1280 bits | 15693 | -04S |
| Ario 370S-DM | 1280 bits | 15693 | -04S |
| TEXAS INSTRUMENTS | | | |
| Tag-it HF I Standard | 256 bits | 15693 | -01 |
| Tag-it HF Pro | 256 bit | 15693 | -01P |
| Tag-it HF I Plus | 2kb | 15693 | -01PS |





Reader Model HF-3020 - Reader can be commanded to operate with ISO 15693, 14443A/B, and with the original Philips Icode-1 Tag chips. Available at an OEM PCB level or in enclosure. RFID, Inc. has customized many different designs under NDA. Read ranges are not quoted in this document as they are dependent upon the Reader.



Reader with external Antenna



Reader with internal Antenna

| | | | |
|------------------------|------------------------|------------------------------|----------------------|
| Specifications: | Dimensions: | 2.5" x 2.375" | 62mm x 60mm |
| | Material: | ABS | |
| | Power: | +7vdc to +24vdc input | 100mA @7v 40mA @ 24v |
| | Antenna: | Internal or external options | SMA female |
| | Storage Temperature: | -40°F to +185°F | -40°C to +85°C |
| | Operating Temperature: | -40°F to +131°F | -40°C to +55°C |
| Ingress Protection: | IP54 | | |

| Part Number | Description |
|----------------|---|
| 710-0161-20 | Model HF 3020 13.56 MHz MicroReader, PCB level, no enclosure, w/o Antenna, USB |
| 830-0003-00 | Model HF-3020 13.56 MHz Reader in enclosure, needs external Antenna, USB |
| 830-0003-00-IA | Model HF-3020 13.56 MHz Reader in enclosure, w/internal Antenna, USB |
| 710-0156-00 | Model HF-3020 13.56 MHz MicroReader, PCB level, no enclosure, w/o Antenna, RS232 |
| 830-0004-00 | Model HF-3020 13.56 MHz Reader w/enclosure, needs external Antenna, RS232 9pin, power jack |
| 830-0004-01 | Model HF-3020 13.56 MHz Reader w/enclosure, needs external Antenna, RS232 pigtailed, power jack |
| 830-0004-02 | Model HF-3020 13.56 MHz Reader w/enclosure, needs external Antenna, RS232 9pin, power pigtailed |
| 830-0004-03 | Model HF-3020 13.56 MHz Reader w/enclosure, needs external Antenna, RS232 & power pigtailed |
| 830-0004-00-IA | Model HF-3020 13.56 MHz Reader w/enclosure, w/internal Antenna, RS232 9pin, power jack |
| 830-0004-01-IA | Model HF-3020 13.56 MHz Reader w/enclosure, w/internal Antenna, RS232 pigtailed, power jack |
| 830-0004-02-IA | Model HF-3020 13.56 MHz Reader w/enclosure, w/internal Antenna, RS232 9pin, power pigtailed |
| 830-0004-03-IA | Model HF-3020 13.56 MHz Reader w/enclosure, w/internal Antenna, RS232 & power pigtailed |
| 830-0719-01 | Model 5102-01 13.56 MHz Antenna, 56mm x 42mm, SMA male connector |
| 830-0719-09 | Model 5102-01 13.56 MHz Antenna, 125mm x 75mm, SMA male connector |
| 720-0008-10 | Regulated 24vdc AC adaptable power supply w/mating jack plug, 1amp, 10' cabling |
| 720-0008-11 | Regulated 24vdc AC adaptable power supply w/pigtail wiring, 1amp, 10' cabling |



Client List (Partial)

USA Medical & Pharmacies:

Abbot Labs
 AmeriPharm
 Amphenol
 Anthem
 Boston Scientific
 Cardinal Health
 CASI
 CDS/Procure
 Cigna Tel-Drug
 CR Bard
 CVS
 Eckerl Drug
 Edward's Life Science
 Excellerx
 FamilyMeds.com
 Humana
 Intuitive Surgical
 Kaiser Permanente
 McKesson SI/Baker
 Medtronic
 Optum Rx
 PacifiCare
 Prescription Solutions
 Providence Health Care
 Rite Aid
 Rx Direct
 Smith's Medical
 Tel-Drug
 Veteran's Admin
 Walgreens
 Wyeth Labs

USA Automotive:

Allen Bradley
 ATS
 Bendix
 BMW
 Caterpillar
 Cummins Engines
 Daimler AG
 Decoma
 Delphi
 Detroit Diesel
 Federal Mogul
 Ford Motor Company
 General Motors
 Hirotec
 Honda
 Howmet
 John Deere
 Meridian Automotive
 Michelin
 Neaton Automotive
 Polaris Industries
 Toyota
 Trident Automotive
 Visteon

USA WIP:

Volvo
 Alcoa
 Amana
 AT&T
 Avtron
 BAE Automation
 Boeing Corporation
 BorgWarner
 BW Rogers
 Carlton-Bates
 CEI Automation
 Charbroil
 Copeland
 Cutler-Hammer
 Eastman Kodak
 EI DuPont
 Electrolux
 Eskay
 Esselte
 Estee Lauder
 FlexLink Conveyors
 Frigidaire
 General Electric
 Ingersoll Rand
 Kim Automation
 Knapp
 Krauss-Maffei
 Lear Jets
 Marshall's
 Maytag
 Motorola
 OshKosh B'Gosh
 Osram Sylvania
 Pepsi (Quaker)
 Proctor & Gamble
 Rockwell
 Rockwell Automation
 SCI Sanmina
 Sears
 SI/Handling Systems
 Square D Company
 Siemens
 Stanley Tools
 Swisslog
 Texas Instruments
 Schick
 Tempur-Pedic
 Thomson Electronics
 TJ Maxx
 TRW
 Valeo Sylvania
 WEPCO
 Whirlpool
 Wunderlich-Malec

USA Discrete Process Controls:

Ace Hardware
 Cargill
 Conagra
 Exxon Mobil
 Inland Steel
 Nestle
 Nippon Steel
 POM Wonderful
 U.S. Steel

USA Routing/ASRS:

AGV Products
 Amerden
 Anheuser-Busch
 Jervis Webb
 JBT
 Lemans
 Los Angeles Times
 Prilgrim's Pride
 The Denver Post
 The Boston Globe
 Transbotics
 Toyota AGV
 U.S. Air Force

USA Entertainment Customer Loyalty:

Bronx Zoo
 CBS Television
 Caesar's High Roller
 Ferris Wheel
 Electrosonic
 Hard Rock Café
 Heywood Engineering
 Maltbie
 NASCAR Hall of Fame
 Northwest Airlines
 Six Flags
 Smithsonian Museum
 Solomon Group
 Strategic Systems
 Technomedia
 Vail Resorts
 Walt Disney World
 WWII Museum

USA Other:

Atmel/Temic
 EFI Vutek
 H.E. Butt Grocery
 Hewlett Packard
 Honeywell
 Los Alamos Labs
 Magic Chef
 NASA
 Nokia

Sandia National Labs
 Timken
 Tyco
 U.S. Navy
 Unilever

AVI Scale Operations:

American Scale
 Apple Valley Scale
 Avery Weigh-Tronix
 Carlton Scale
 Halliburton
 Industrial Scale Systems
 Meldrum Scale
 Pacific Industrial Scale
 Rice Lake Weighing
 Sanstrom Scale
 Standard Scale
 Wingfield Scale

Asia:

IceGen (dist. India)
 Electronic Corporation of India
 FTRD (dist. China)
 Tata Consultancy
 Toyota (Japan)

Australia/Africa:

Alcoa World Alumina
 BHP Billiton Iron Ore
 Byrncut Mining
 CMA Systems
 Dampier Salt
 Fortescue Metals
 Hamersley Iron
 Harmonic (dist. S. Africa)
 Logitech Consultants
 Newcrest Telfer Gold Mine
 Pacific Automation (dist. AUS)
 Port Waratah
 Queens Creek
 Robe River Iron
 Sinclair Knight Merz
 ThyssenKrupp
 Tomago Aluminum
 Voest-Alpine

Canada:

AG Simpson Automotive
 AMT Mach Tools (dist, Tor)
 ArcelorMittal
 Aurora Bar Code
 City of Fort St. John
 CraneSmart
 Kellogg's Cereal
 Keilhauer
 LSZ PaperTech
 Rotalac (distributor)
 U.S. Steel

Central & South America:

Fenwal (Dominican Rep.)
 General Electric (Mexico)
 Hylsa (Mexico)
 IdeaNet (distributor, Chile)
 Lasso (distributor, Mexico)
 MABE Leiser (Mexico)
 SCI Sanmina (Mexico)
 Retex (Peru)
 RSI (Mexico)
 TecWise (distributor, Brazil)
 TRW (Mexico)

Europe:

BMW (UK)
 Efacec (Portugal)
 FQ (distributor, Spain)
 Infos (distributor, Portugal)
 London Heathrow Airport (Baggage)
 MDA Systems (France)
 Moncks & Crane (UK)
 ProveIT (distributor, UK)
 SCI Sanmina (Hungary)
 Securitas (Sweden)
 Tempore (Austria)
 TRW (UK & Germany)

USA Distributors:

Allied Automation (IN, KY)
 Anixter
 Applied Automation (NY)
 Applied Controls (PA, MD, DE)
 Automation, Inc. (MN, ND, SD, IA, WI)
 Azure Solutions (east MI)
 Burns Controls (TX)
 C&E Sales (IN, OH, KY)
 CodeSource (TX)
 Cornerstone (TN, AL, GA, NC, SC, MS)
 Gibson Eng. (MA, CT, ME, RI)
 Industrial Controls (west MI)
 Innovative Control Inc.
 Midwest Engineering (Ohio)
 MSI Tech (CO, UT, AZ, NV, NM)
 Pacific Technical (SoCal)
 Power Motion (MO, KS, AK, OK, LA)
 Power/mation (MN, IA, WI, IL)
 Precise Motion (FL)
 Proud Company (western PA)
 PRI (NY, NJ)
 RR Floody (IL, IA)
 Taylor Data (SC, NC, FL)