IQ Range – Labels

Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices

🔥 High Temperature

		IQ 150	IQ 350	IQ 400P	IQ 400P HT
Product Name					
Typical Applications		IT, office, hospital asset tracking Weapons, pipes, road signs Warehouse management	IT and office asset tracking Logistics with metallic packaging Intermodal logistics	Plastic facias's on IT equipment Identification of IT & office hardware	Manufacturing Automotive paint processes Electronics
RF Specifications	**Frequency Range (MHz)**	902-928 (US) 866-868 (EU)	902-928 (US) 866-868 (EU)	860-960 (GS)	860–960 (GS)
	Read Range (m) **Fixed reader** **Handheld reader**	Up to 1.6 Up to 1.0	Up to 3.5 Up to 2.0	Up to 5.0 Up to 2.5	Up to 4.0 Up to 2.0
	Material Compatibility	Optimized for all materials	Optimized for all materials	Plastic & non-metallic substrates	Plastic & non-metallic substrates
	IC Type	Impinj Monza R6-P	Impinj Monza R6-P	Alien Higgs 3	Alien Higgs 3
Physical and Environmental Specifications	**Encasement / Material**	Synthetic label	Synthetic label	Synthetic label	Synthetic label
	Size (mm)	55.0 × 12.5 × 1.20	50.0 × 12.5 × 1.30	46.5 × 12.4 × 0.24	50.0 × 30.0 × 0.49
	Weight (g)	0.44	0.50	0.15	0.51
	Operating Temperature (°C) **Max Temperature Exposure (°C)**	-40 to +85 -40 to +85	-40 to +85 -40 to +85	-40 to +85 -40 to +85	-40 to +85 -40 to +230
	Ingress Protection	IP68	IP68	IP68	IP68
	Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
	Attachment	Self Adhesive (std)	Self Adhesive (std)	Self Adhesive (std)	Holes provided for mechanical attachment
	Order Codes†	125 – US, EU	158 – EU, US	055 – GS	166 – GS

† Order option codes are listed on the datasheets.

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Values for Comparison only, please refer to Product Datasheets for full specifications

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IQ Range – Labels

Featured Comparison Guide

Omni-ID®
Intelligent Tracking & Monitoring Devices

🔥 High Temperature

		IQ 600	IQ 800P	IQ 800P HT
Product Name				
	Typical Applications	Logistics & packaging, Pipe manufacturing & recertification IT, Office, & Hospital tracking	Plastic RTI's and containers Plastic pallets	Manufacturing Automotive paint processes Electronics
RF Specifications	**Frequency Range (MHz)**	902-928 (US) 866-868 (EU)	860–960 (GS)	860–960 (GS)
	Read Range (m) Fixed reader Handheld reader	Up to 6.0 Up to 3.0	Up to 10.0 Up to 5.0	Up to 8.0 Up to 5.0
	Material Compatibility	Optimized for all materials	Plastic & non-metallic substrates	Plastic & on-metallic substrates
	IC Type	Impinj Monza R6-P	Alien Higgs 3	Alien Higgs 3
Physical and Environmental Specifications	**Encasement / Material**	Synthetic label	Synthetic label	Synthetic label
	Size (mm)	96.0 × 24.0 × 1.30	95.0 × 21.0 × 0.24	85.0 × 55.0 × 0.49
	Weight (g)	1.50	0.50	1.50
	Operating Temperature (°C) **Max Temperature Exposure (°C)**	-40 to +85 -40 to +85	-40 to +85 -40 to +85	-40 to +85 -40 to +230
	Ingress Protection	IP68	IP68	IP68
	Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
	Attachment	Self Adhesive (std)	Self Adhesive (std)	Holes provided for mechanical attachment
	Order Codes†	133 – US, EU	056 – GS	165 – GS

† Order option codes are listed on the datasheets.

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Fit Range – Small for Integration, High Temperature

Omni-ID®
Intelligent Tracking & Monitoring Devices

Featured Comparison Guide

Product Name	🔥 High Temperature **Fit 210HT**	🔥 High Temperature **Fit 220HT**	🔥 High Temperature **Fit 400HT**
Typical Applications	Hand Tool tracking Paint processes in automotive IT assets at point of manufacture Healthcare - sterilization	Small metal tools IT assets Healthcare instruments	Tool tracking including metal hand tools Metal IT assets Autoclaves & high temperature sterilizations

RF Specifications

	Fit 210HT	Fit 220HT	Fit 400HT
Frequency Range (MHz)	902–928 (US) 866–868 (EU)	902–928 (US) 866–868 (EU)	902–928 (US) 866–868 (EU)
Read Range (m) **Fixed reader** **Handheld reader**	Up to 2.0 Up to 1.0	Up to 2.2 Up to 1.4	Up to 4.0 Up to 2.0
Material Compatibility	Optimized for Metal	Optimized for Metal	Optimized for Metal
IC Type	Alien Higgs 3	Alien Higgs 3	Alien Higgs 3

Physical and Environmental Specifications

	Fit 210HT	Fit 220HT	Fit 400HT
Finish	Red PCB	Ceramic - Painted Black	Ceramic -Painted Black
Size (mm)	57.1 x 5.95 x 1.3	7.80 x 6.80 x 2.70 (includes IC bump)	13.10 x 7.80 x 3.10 (includes IC bump)
Weight (g)	1.00	0.60	1.50
Operating Temperature (°C)[1] **Max Temperature Exposure (°C)[1]**	-20 to +85 -20 to +225	-20 to +85 -20 to +235	-20 to +85 -20 to +235
Ingress Protection	IP68	IP68	IP68
Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
Attachment	Film adhesive (standard) [For placement only in applications exceeding +85°C]	Film adhesive (standard) [For placement only in applications exceeding +85°C]	Film adhesive (standard) [For placement only in applications exceeding +85°C]
Order Codes[†]	123 - EU, US	155 - EU, US	124 - EU, US

1 Excludes adhesive options, consult adhesive datasheets for recommended temperature ratings. Maximum constant exposure for Fit 220 & 400 = 700 hours and 12 hours for Fit 210. † Order option codes are listed on the datasheets.

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Flex Range – Flexible to Fit Many Applications

Omni-ID®
Intelligent Tracking & Monitoring Devices

Featured Comparison Guide

Product Name	Flex 600	Flex 1200
Typical Applications	Office Equipment Light outdoor use Returnable Transit Items Ideal for portal setups	Office Equipment Light outdoor use Returnable Transit Items Ideal for Portal setups

RF Specifications

	Flex 600	Flex 1200
Frequency Range (MHz)	902–928 (US) 866–868 (EU)	902–928 (US) 866–868 (EU)
Read Range (m) **Fixed reader** **Handheld reader**	Up to 6.0[1] on metal, 3.0m off metal Up to 3.0m on metal, 1.5m off metal	Up to 12.0m on metal, 8.0m off metal Up to 6.0m on metal, 4.0m off metal
Material Compatibility	Metal & non-metallic substrates	Optimized for Metal
IC Type	Monza R6-P	Monza R6-P

Physical and Environmental Specifications

	Flex 600	Flex 1200
Coverstock	White synthetic label with transparent over laminate	White synthetic label with transparent over laminate
Size (mm)	55.8 x 20.0 x 2.50	75.0 x 25.0 x 2.50
Weight (g)	0.85	1.66
Operating Temperature (°C)[1]	-40 to +85	-40 to +85
Ingress Protection	IP68	IP68
Shock and Vibration	MIL STD 810-G	MIL STD 810-G
Attachment	Film adhesive (std)	Film adhesive (std)
Order Codes[†]	149 - US, EU	160 - US, EU

1 Excludes adhesive options, consult adhesive datasheets for recommended temperature ratings. Maximum constant exposure for Fit 220 & 400 = 700 hours and 12 hours for Fit 210. † Order option codes are listed on the datasheets.
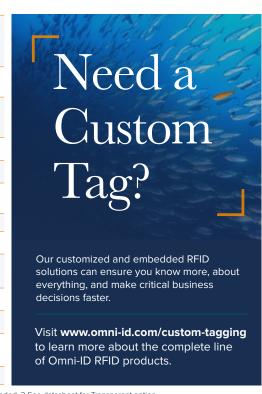
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Exo Range – Encased and Heavy-Duty

Featured Comparison Guide

Omni-ID®
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		High Temperature	Global	Global	Global	Global
Product Name		**Exo 400HT**	**Exo 600**	**Exo 750**	**Exo 800**	**Exo 800P Rigid**
Typical Applications		Healthcare sterilization processes Manufacturing Automotive. post paint processes	Logistics & Postal Industries. Automotive. Retail & warehousing	Automotive Supply Chain. Logistics and Postal. Manufacturing tote tracking	Manufacturing tote tracking. Logistics and Postal. Retail supply chain	Plastic RTIs and containers Plastic pallets Non-metallic industrial assets
RF Specifications	**Frequency Range (MHz)**	902-928 (US) 866-868 (EU)	860–930 (GS)	860–930 (GS)	860–930 (GS)	860–930 (GS)
	Read Range (m) **Fixed reader** **Handheld reader**	Up to 4.0 Up to 2.0	Up to 6.0 Up to 3.0	Up to 11.0 (US), 7.0 (EU) Up to 5.0 (US), 3.5 (EU)	Up to 8.0 Up to 4.0	Up to 8.0
	Material Compatibility	Optimized for Metal	Optimized for Metal	Optimized for Metal	Optimized for Metal	Optimized for Plastic
	IC Type	Alien Higgs 3	Impinj Monza 4QT	Impinj Monza 4QT	Impinj Monza 4QT	Alien Higgs 3
Physical and Environmental Specifications	**Encasement[2]**	Thermoplastic	ABS Rigid Plastic	ABS Rigid Plastic	ABS Rigid Plastic	ABS Rigid Plastic
	Size (mm)	37.0 × 14.0 × 7.5	80.0 × 15.0 × 12.5	51.0 × 48.0 × 12.6	110 × 25.0 × 12.9	105 × 36.0 × 3.5
	Weight (g)	5.7	12.5	25.6	26.8	11.6
	Operation Temperature (°C) **Max Temperature Exposure (°C)**	−20 to +85 −20 to +235	−40 to +85 −40 to +85	−40 to +85 −40 to +85	−40 to +85 −40 to +85	−20 to +85 −20 to +85
	Ingress Protection	IP68	IP68	IP68	IP68	IP68
	Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
	Attachment	Mechanical (std) 2 x Ø3mm holes	Mechanical (std.) Premium foam adhesive (option)	Mechanical (std.) Premium foam adhesive (option)	Mechanical (std.) Premium foam adhesive (option)	Rivet/Screw(not included) Premium foam adhesive (option)
	Order Codes[†]	144 – EU, US	061 – GS	078 – GS	077 – GS	104 – GS

[†] Order Option Codes are listed on the datasheets. 1 Prolonged exposure to temperatures over 70°C may result in minor dimensional change to the case, attachment by rivets instead of adhesive is recommended. 2 See datasheet for Transparent option

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Values for Comparison only, please refer to Product Datasheets for full specifications

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Exo Range – Encased and Heavy-Duty

Featured Comparison Guide

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Product Name	Exo 1000	Exo 2000	Exo 3000
	🌐 Global	🌐 Global	🌐 Global
Typical Applications	Manufacturing tote tracking Logistics and Postal Retail supply chain	Container tracking for yard management. Cargo tracking. Defense asset management	Cargo and container tracking. Heavy equipment tracking and maintenance. Location identification in lay down zones

RF Specifications

	Exo 1000	Exo 2000	Exo 3000
Frequency Range (MHz)	860–930 (GS)	860–930 (GS)	860–930 (GS)
Read Range (m) Fixed reader Handheld reader	Up to 10.0 Up to 8.0	Up to 20.0 Up to 9.0	Up to 33.0 Up to 20.0
Material Compatibility	Optimized for Metal	Optimized for Metal	Optimized for Metal
IC Type	Impinj Monza 4QT	Impinj Monza 4QT	Impinj Monza 4QT

Physical and Environmental Specifications

	Exo 1000	Exo 2000	Exo 3000
Encasement	ABS Rigid Plastic	PC ABS blend	PC ABS blend
Size (mm)	110 × 25.0 × 12.7	139 × 53.0 × 14.9	174 × 70.0 × 17.7
Weight (g)	18.3	64.0	110
Operation Temperature (°C) Max Temperature Exposure (°C)	−40 to +85[1] −40 to +85[1]	−40 to +85 −40 to +100	−40 to +85 −40 to +100
Ingress Protection	IP68	IP68	IP68
Shock and Vibration	MIL STD 810-G	MIL STD 810-G	MIL STD 810-G
Attachment	Mechanical (std) 2 x Ø3mm holes	Manual (std) Premium Foam adhesive (option)	Mechanical (standard) Premium foam adhesive (option)
Order Codes†	144 – EU, US	152 – GS	153 – GS

† Order Option Codes are listed on the datasheets. 1 Prolonged exposure to temperatures over 70°C may result in minor dimensional change to the case, attachment by rivets instead of adhesive is recommended. 2 See datasheet for Transparent option

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Sense IoT Range – Intelligent, Powerful IoT Devices

Omni-ID®
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	Sense^{IoT} Asset (Bluetooth)	Sense^{IoT} Asset XL (LoRaWAN)	Sense^{IoT} Condition (with Alert Button) (LoRaWAN)	Sense^{IoT} Condition (with Laser Range Finder) (LoRaWAN)	Sense^{IoT} Fit 400 (RFID)
Product Name	Sense^{IoT} Asset	Sense^{IoT} Asset XL	Sense^{IoT} Condition (with Alert Button)	Sense^{IoT} Condition (with Laser Range Finder)	Sense^{IoT} Fit 400
Typical Applications	Hospitals, Manufacturing facilities, Warehouse management, Cold chain condition monitoring, Container management, Facilities management, Ports construction & mining, Asset management	Cold chain condition monitoring, Container management, Facilities management, Ports construction & mining, Field operations, Asset management, Worker accountability, Fleet monitoring, Yard management	Facilities management, Production line material flow, Consumable replenishment, Room utilisation, State change notification, Space/asset utilisation, Field operations, Ports construction & mining, Emergency detection, Asset management, Worker accountability, Fleet monitoring, Yard management	Facilities management, Production line material flow, Consumable replenishment, Room utilisation, State change notification, Space/asset utilisation, Field operations, Ports construction & mining, Emergency detection, Asset management, Worker accountability, Fleet monitoring, Yard management	Efficient operation, Equipment monitoring in-house or in transit, Data Centers and metal IT assets – both in terms of tracking and temperature monitoring, Embedding the tag into metal components, Monitoring mechanical plants

Operational Specifications

Radio Protocol	Bluetooth 4.2 (2.45GHz) +8dBm to –15dBm NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	LoRaWAN NFC (Beacon configured via NFC)	EPC Class 1 Gen2v2
Frequency Range LoRa	N/A	868MHz (EU) | 915MHz (US)	868MHz (EU) | 915MHz (US)	868MHz (EU) | 915MHz (US)	866-868 (EU) | 902-928 (US)
Battery Type	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	Sealed Prismatic battery, non-replaceable	N/A
Battery Capacity	1.5Ah	4.8Ah	3.85Ah	3.85Ah	N/A
Battery Life	5 years, 5% motion, 10 second beacon rate	5 years, 2,000 movements	5 years+, 25,000 activations	5 years+ at 15 Minute range reading interval	N/A
Read Range	200 m+ depending on reading device	Range 3–4 km urban — can be up to 15 km line of sight	Range 3–4 km urban — can be up to 15 km line of sight	Range 3–4 km urban — can be up to 15 km line of sight	Fixed reader: Up to 4 m (13.1 ft)[1] Handheld reader: Up to 2 m (6.6 ft)[1]
Default Beacon Rate	Configurable from 1–10 seconds	Configurable from 1–254 hours	Configurable from 1–254 hours	Configurable from 1–254 hours	N/A
Alarm Beacon Rate	Configurable from 0–10 seconds (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	Configurable from 1–254 minutes (where 0 is off)	N/A
Sensors	Accelerometer, Temperature	GPS (Location) Accelerometer (Movement) Temperature (Measurement)	Push Button (Alert) Optional: Temperature, AccelerometerAccelerometer (Movement) Temperature (Measurement)	Laser Range Finder Optional: Temperature, AccelerometerOptional: Temperature, AccelerometerAccelerometer (Movement) Temperature (Measurement)	Temperature
LED Indicator	Yes	Yes	Yes	Yes	No
Temperature Sensor Range	−20°C to +60°C with an accuracy of +/−2°C	−20°C to +60°C with an accuracy of +/−2°C	N/A	N/A	

1. Excludes adhesive options, consult adhesive datasheet for recommended temperature ratings.

Continues overleaf

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Values for Comparison only, please refer to Product Datasheets for full specifications

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Sense IoT Range – Intelligent, Powerful IoT Devices

Omni-ID
Intelligent Tracking & Monitoring Devices

Product Name	Sense IoT Asset	Sense IoT Asset XL	Sense IoT Condition (with Alert Button)	Sense IoT Condition (with Laser Range Finder)	Sense IoT Fit 400
	Bluetooth	LoRaWAN	LoRaWAN	LoRaWAN	RFID
Configurable	Tag Type (GATT Profile) Alarm Beacon Rate Default Beacon Rate Temp. Threshold Acc. Threshold	Alarm Beacon Rate Default Beacon Rate Temp. Threshold Acc. Threshold *GNSS Min. Lock Time *GNSS Max. Lock Time *GNSS DOP Threshold	Alarm Beacon Rate Default Beacon Rate Sensor Period (Minutes) Optional Temp	Alarm Beacon Rate Default Beacon Rate Sensor Period (Minutes)	N/A
Supported Profiles	Open, iBeacon, Eddystone UUID	N/A	N/A	N/A	N/A
Construction	Overmolded durable, shock resistant TPE (Thermoplastic elastomer)	Overmolded durable, shock resistant TPE (Thermoplastic elastomer)	2-part durable PC/ABS Case	2-part durable PC/ABS Case	Painted black. Optimized for metal
Size (mm)	95.1 × 34.2 × 21	113.4 × 58.3 x 24.3	80.3 × 60.3 × 21.3	102.5 × 60.3 × 20.1	13.1 x 8.05 x3.1 including IC bump Tolerance +/−0.5
Weight (g)	59	134	77	80	1.4
Attachment	Mechanical (std) Film Adhesive (optional)	Mechanical (std) Film Adhesive (optional)	Film Adhesive	Mechanical (std) Film Adhesive (optional)	Film adhesive (included) for placement only in applications exceeding +85°C[2]
Operating Temperature	−20°C to +60°C	−20°C to +60°C	−20°C to +60°C		−40°C to +85°C[1]
High-temperature Alarm	N/A	N/A	N/A	N/A	Up to +125°C[1]
Max Temperature Exposure[1]	N/A	N/A	N/A	N/A	220°C short term 168 hrs 150°C long term 700 hrs
IP Rating	IP68	IP68	IP68	IP68	Magnus S3: M3D / M3E
Shock and Vibration	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-F	MIL-STD-810-G
IC Type (chip)	N/A	N/A	N/A	N/A	Magnus S3: M3D / M3E
Warranty	1 year	1 year	1 year	1 year	1 year
Certifications	CC, FCC, ROHS, WEEE, NFC, BLE	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa	CC, FCC, ROHS, WEEE, NFC, LoRa	CE , ROHS, ATEX Certified (Optional) C1D1/D2 Certified (optional)

1. Excludes adhesive options, consult adhesive datasheet for recommended temperature ratings. 2. The product has been designed for optimal RF performance when used with 130 micron +/-20% adhesive under the tag.

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