

RFID & IoT SPECIFIC TAG SPECIAL COMPANY

INSIGHT&

[900MHz – ISO18000-6C]

MEGA-IS-Ant

(Sales Code. P3010-H3)

UHF Special Metal Tag

SPECIAL High-Temp. TAG (MEGA-IS-Ant)

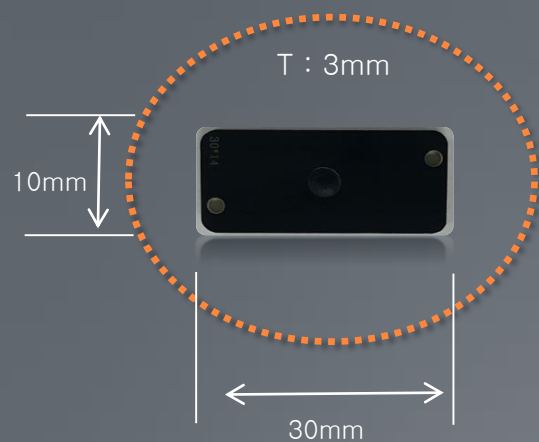
Specialized in RFID Tags , INSIGHT& provides reliable RFID products and satisfactory services to customers from various sectors worldwide.

With strong research and development capabilities and advanced production technology, INSIGHT& commits itself to be the of world's leading provider of RFID products and solution. South Korea, which develop RFID tags and solutions focusing on customer's specific needs.

Rugged RFID tag designed for demanding outdoor environments.

Tested for shock, rain, dust, light immunity, oil and chemical resistance, solar tolerance, humidity and extreme temperatures and provides the flexibility to attach to nearly any flat surface. (Mount to metal, Plastic or wood via adhesive or bolts or screws)

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[Attachment Method]

1. High quality adhesive tape
2. High-Temp. Epoxies (Back side)
3. Silicone sealants

Frequency	▪ UHF : 860 ~ 960MHz
Air Protocol	▪ ISO18000-6C / EPC Class1 Gen2
Operating Country	▪ 860 ~ 960MHz (EU/US/KR/JP)
SIZE	▪ 30(W) x 10(H) x 3(T)mm
RFID IC Chip	▪ Alien Higgs3
Memory Configuration	▪ Total Memory : 800bits ▪ EPC : 96bits(Extended up to 488bits) ▪ User : 512bits
Reads Range	▪ ~1m (Hand-held) , ~1.5m (Fixed) - On Metal * Base on 1watt EIRP *
Write & Reading Endurance	Write > 100,000 Cycles / Reading > Infinity
Operating Temperature	▪ -30 ~ 80°C (-22 ~ 176°F)
Storage Temperature	▪ - 40 ~ 160°C (-40 ~ 320°F)
Material	▪ Tag : FR4 (Hyper-Impact-resistant) ▪ Coating : Urethane
Attachment	▪ High quality adhesive tape
IP Class	▪ IP 68 (http://www.dsmt.com/resources/ip-rating-chart/)
Option	▪ EPC Data Extension
Year of Release	▪ 2010

Silicon RFID Chip Specification



* Expansion with scalable EPC Data with 480bits *

Higgs-3

EPC Class 1 Gen 2 RFID Tag IC

Operating Conditions & Electrical Characteristics

Symbol	Parameter	Conditions / Capability	Min	Typ	Max	Units
Operating Conditions						
T_A	Operating Temperature		-50		+85	°C
f_{in}	Operating Frequency		860		960	MHz
Electrical Characteristics						
S_R	Sensitivity during Read	Reading		-18		dBm
I_S	Interference Signal Suppression			-4		dB
R_p	Equivalent input parallel resistance	At -14 dBm input power		1500		Ohms
C_p	Equivalent input parallel Capacitance	At -14 dBm input power		0.85		pF
D_{ret}	Data Retention			10		Years
P_{cycl}	Programming Cycles at 25°C			100000		Cycles

Memory Map

Bank	Address	Description	Memory	Bits
User	00h – 1FFh	User	NVM	512
TID	60h – BFh	Device Configuration	ROM-NVM	96
	20h – 5Fh	Unique Tag ID Unalterable	NVM	64
	00h – 1Fh	TID EPC/TMD/TMDID/TMN	ROM	32
EPC	20h – 7Fh	EPC #	NVM	96
	10h – 1Fh	EPC-PC	NVM	16
	00h – 0Fh	EPC-CRC	RAM	16
Reserved	20h – 3Fh	RES-Access Pwd, EPC optional	NVM	32
	00h – 1Fh	RES-Kill Pwd	NVM	32

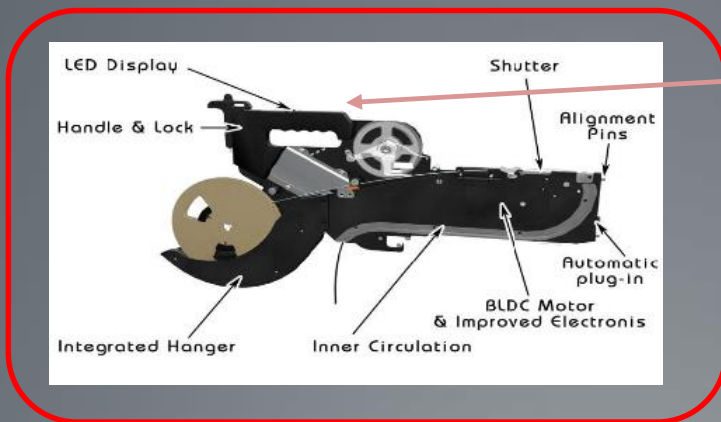
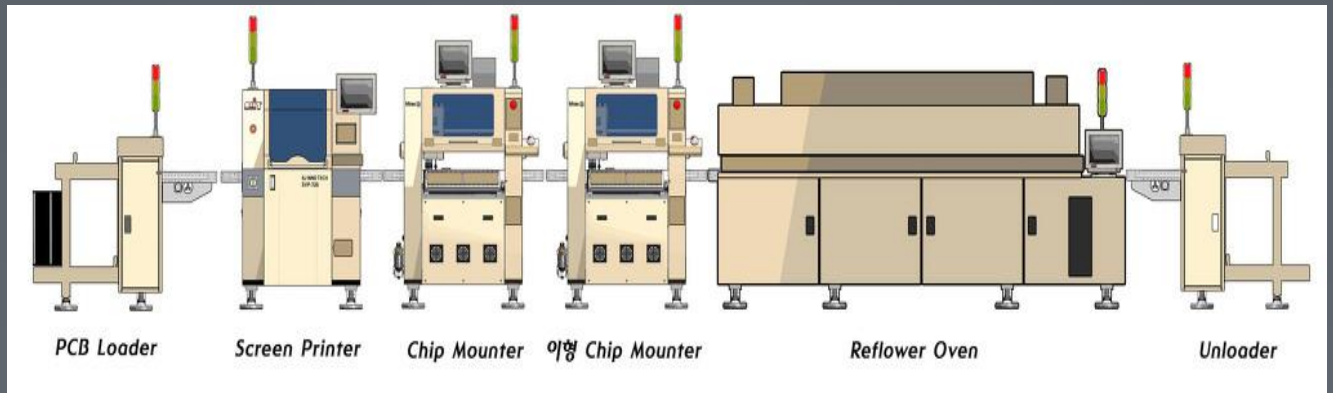
Ordering Information

Part	Model Number	Description
Higgs-3 IC	ALC-360-S	JEDEC MO-283 Variant AB Strap
	ALC-360-W-GS	Bumped, Tested, Ground & Sawn Wafer (8 inch) on UV Tape Mounted on Disco Metal Film Frame
	ALC-360-W-SOT	SMD Package: SOT-323

SPECIAL METAL TAG (MEGA-IS-Ant)

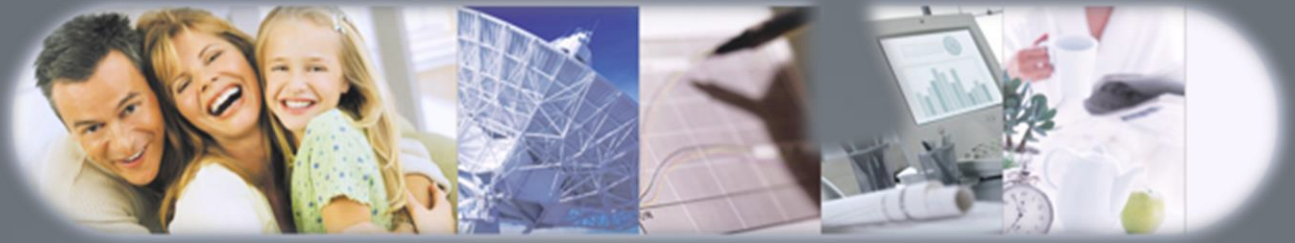
APPLICATIONS

- MES System for Tape Feeder History Tracking



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고객과 소통하면서 고객 자산 & 브랜드 보호를 위해 끊임없이 연구합니다.



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COMMUNICATION & UBIQUITOUS & SOLUTION

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