Model F05-H3 5mm FR4 RFID Tag Specifications & Data Sheet

FR4 Tags are specifically designed to perform better when mounted on metal and can be subsurface metal mounted as well with some minimal free air (normally filled with epoxy) around its perimeter. Encapsulated in a hard thermoplastic shell is a high-performance Alien Higgs 3 memory chip. FR4 Tags are also capable of surviving high temperature processes of up to 200°C (392°F) indefinitely and beyond dependent upon their time of exposure.

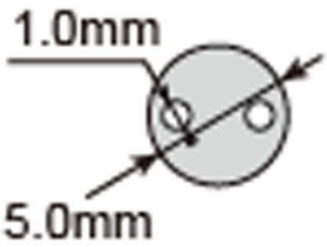


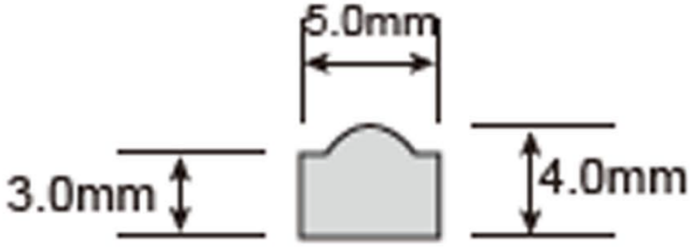
Model Number	Part Number	Description	Read Range (on metal)
F05-H3	807-0001-F05-H3	Model F05-H3 FR4 UHF RFID Tag, Metal Mount, Alien Higgs3 chip, w/mounting holes	A99H Antenna – 30” A55C Antenna – 9” A64C Antenna – 5”

Mechanical:	Measurements:	5mm Diameter x 4mm tall	.20”x.16”
	Material:	FR4	Epoxy Top
	Weight:	0 ounces	Less than a gram
Certifications:	RoHS III	REACH	CE
	FCC Part 15 & ETSI	ATEX compliant, SIL2	Free of BBP, DEHP, DBP, DIBP

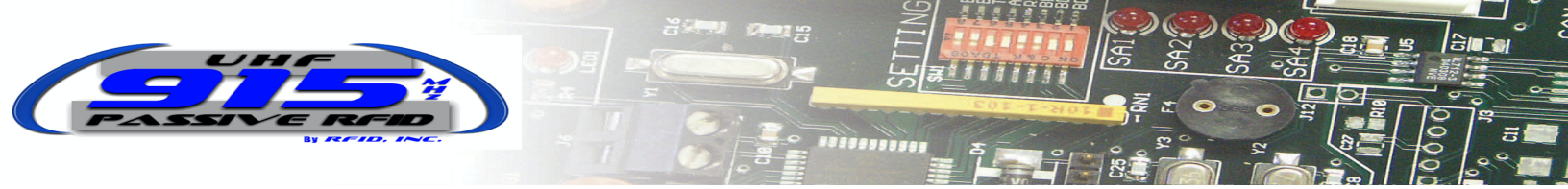
Alien Higgs 3:	TID – 64 bits	EPC – 96 to 480 bits	User Memory - 512 bits
RF:	Standard:	EPC Class1 Gen2	ISO 18000-6C
	Frequency:	902 – 928 MHz (North America)	860 – 870 MHz (EU, Japan)
	Power:	Passive, no Battery	Powered by Reader RF Signal
Chip Options (page 2):	TID – 32 to 208 bits	EPC – 0 to 496 bits	User – 0 to 61,400 bits

Environmental:	Storage Temp:	-40°F to +392°F	-40°C to 200°C
	Temp, Operating:	-40°F to +185°F	-40°C to +85°C
	Life:	40 Year Shelf Life	100k Writes
	Ingress Protection:	IP68	





14190 E. Jewell Ave. Suite 4, Aurora, CO 80012 info@rfidinc.com | 303.366.1234 | www.rfidinc.com/ ver. 1/21



Available UHF Memory Chips:

Alien	TID (ROM)	UID (EPC)	User Memory
Higgs3	64 bits	96 to 480 bits	512 bits
Higgs4	64 bits	128 bits	128 bits
HiggsEC	48 bits	96-128 bits	128 bits
Higgs9	48 bits	496 bits	688 bits
EM	TID (ROM)	UID (EPC)	User Memory
EM4123	64 bits	0 bits	0 bits
EM4124	64 bits	96 bits	0 bits
EM4126	32 bits	208 bits	0 bits
EM4324	64 bits	96 bits	720 bits
EM4325	48 bits	352 bits	3072 bits
EM4423 dual HF NFC/UHF	96 bits	64-160 bits	0 bits
EM4425 dual HF NFC/UHF	96 bits	Up to 480 bits	Up to 2048 bits less EPC
Fujitsu (FRAM)	TID (ROM)	UID (EPC)	User Memory
MB97R88110	208 bits	480 bits	61,400 bits
MB97R88120/8130	208 bits	480 bits	61,400 bits
MB97R8050	176 bits	160 bits	0 bits
Impinj	TID (ROM)	UID (EPC)	User Memory
M4D	96 bits	Up to 128 bits	32 bits
M4E	96 bits	Up to 496 bits	128 bits
M4QT	96 bits	Up to 128 bits	512 bits
M4i	96 bits	Up to 256 bits	480 bits
MX-8k	96 bits	Up to 128 bits	8,192 bits
Monza R6P	96 bits	Up to 128 bits	Up to 64 bits
Monza R6	96 bits	96 bits	0 bits
Monza R6A	96 bits	96 bits	0 bits
Monza R6B	96 bits	Up to 128 bits	32 bits
Monza 5	96 bits	128 bits	32 bits
M730	96 bits	128 bits	0 bits
M750	96 bits	96 bits	32 bits
NXP	TID (ROM)	UID (EPC)	User Memory
UCODE 7	48 bits	128 bits	0 bits
UCODE 7m	48 bits	128 bits	32 bits
UCODE 7xm	48 bits	448 bits	1024 bits
UCODE 7xm+	48 bits	448 bits	2048 bits
UCODE 8	96 bits	128 bits	0 bits
UCODE 8m	96 bits	96 bits	32 bits
UCODE 9	96 bits	96 bits	0 bits
UCODE G2iL & G2iL+	64 bits	128 bits	0 bits
UCODE G2iM	96 bits	256 bits	512 bits
UCODE G2iM+	96 bits	Up to 448 bits	Up to 640 bits
UCODE G2XM	64 bits	240 bits	512 bits
UCODE G2XL	64 bits	240 bits	0 bits
UCODE HSL	64 bits	0 bits	1680 bits