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Laboratoire de Moirans
Z.I. Centr'Alp
170, Rue de Chatagnon
38430 MOIRANS - FRANCE

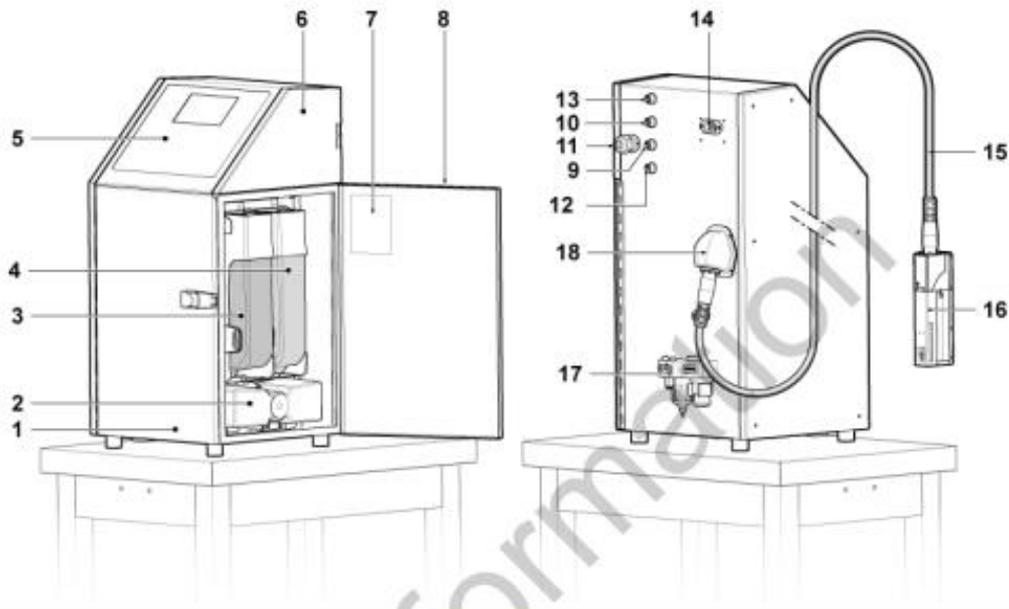
GENERAL INFORMATION

FCCID: 2AAW8-MI9000

1.1. Product description

Presentation of the printer

■ Overview



1	Housing	10	M12 connector: tachometer (encoder) input (blue)
2	M5 [®] module	11	Ethernet port (optional)
3	Additive cartridge	12	M12 connector: RS-232 outlet
4	Ink cartridge	13	M12 connector: photo detector outlet (black)
5	Operator interface	14	Mains connector
6	Air filter cover	15	Umbilical 3 meters
7	Identification label	16	Print head
8	Consumables access door	17	Head pressurization kit (option)
9	M12 connector: alarm warning light (yellow, optional)	18	Umbilical outlet



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1.2. Tested System Details

2.1. JUSTIFICATION

The system was configured for testing in a typical fashion (as a customer would normally use it).

Printer 9018 , 9028 & 9029 are same electronic, differences are:

1. Index of protection IP44 (9018), IP54 (9028 & 9029)
2. Pressurization of the print head by external compressed air to the printer, air-network customer (9018); by autonomous compressor provided inside the printer(9028 & 9029)
3. Possibility of impression of 3 lines maximum (9018), 4 lines (9028 & 9029).
4. Printer 9029 is the same as the 9028 except for aesthetic variations not safety related

RFID is activated by software following option choice by user.

All tests are performed on 9029 with RFID ON, worst case.

2.2. HARDWARE IDENTIFICATION (EUT AND AUXILIARIES):

Equipment under test (EUT):

9029

FCC ID: 2AAW8-MI9000

IC: 11372A-MI9000

Serial Number: FR18130154



Photography of EUT

Power supply:

During all the tests, EUT is supplied by V_{nom} :110VAC/60Hz

For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Main supply	<input checked="" type="checkbox"/> AC <input type="checkbox"/> DC <input type="checkbox"/> Battery	100-240VAC, 50-60Hz	/	/



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Inputs/outputs - Cable:

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
Main supply	P+N+E	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Umbilical cable	Printing head cable	3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Beacon cable	Status beacon input	5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Tachymeter cable	Tachymeter input	6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	
Proximity Cell cable	Proximity cell input	6	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	

Auxiliary equipment used during test:

Type	Reference	Sn	Comments
Proximity cell	A45638	D451	/
Pulse encoder	A41370	B11219C194 -4	/
Beacon	FB194	16419P	Model MP-02C
Relay output option	A54006	/	Reference Markem Imaje

Equipment information:

Frequency band:	<input checked="" type="checkbox"/> [13.553–13.567]MHz	<input type="checkbox"/> [125]kHz	<input type="checkbox"/> [-] MHz
Sub-band REC7003:	<input checked="" type="checkbox"/> Annex 9 (j)	<input type="checkbox"/> Annex 9 (a3)	<input type="checkbox"/> Annex ()
RF mode:	<input type="checkbox"/> Transmitter	<input checked="" type="checkbox"/> Transceiver	<input type="checkbox"/> Receiver <input type="checkbox"/> Standby
Type:	<input checked="" type="checkbox"/> RFID	<input type="checkbox"/> EAS	<input type="checkbox"/> Other:
Bandwidth:	<input type="checkbox"/> Narrowband (ISO15693, ISO18000-3...)	<input checked="" type="checkbox"/> Wideband (ISO14443, NFC...)	
Product class – Annex B.2	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3 <input type="checkbox"/> 4
Channelized system:	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes, channel spacing: kHz	
Equipment intended for use as a	<input checked="" type="checkbox"/> Fixed	<input type="checkbox"/> Mobile	<input type="checkbox"/> Portable
Type of equipment:	<input checked="" type="checkbox"/> Stand-alone	<input type="checkbox"/> Plug-in	<input type="checkbox"/> Combined
Antenna Type:	<input type="checkbox"/> External		<input checked="" type="checkbox"/> Internal
Antenna connector:	<input type="checkbox"/> Permanent external	<input type="checkbox"/> Permanent internal	<input checked="" type="checkbox"/> None <input type="checkbox"/> Temporary (only for tests)
Antenna Gain:	NC dBi		
Duty cycle:	<input checked="" type="checkbox"/> Continuous duty	<input type="checkbox"/> Intermittent duty	<input type="checkbox"/> Continuous operation
Equipment type:	<input checked="" type="checkbox"/> Production model		<input type="checkbox"/> Prototype
Temperature range:	Tmin:	<input type="checkbox"/> -30°C	<input type="checkbox"/> 0°C <input checked="" type="checkbox"/> +5 °C
	Tnom:	20°C	
	Tmax:	<input type="checkbox"/> 35°C	<input type="checkbox"/> 55°C <input checked="" type="checkbox"/> +45 °C
Type of power source:	<input checked="" type="checkbox"/> AC power supply	<input type="checkbox"/> DC power supply	<input type="checkbox"/> Battery (Select type)
Test source voltage:	Vmin:	<input checked="" type="checkbox"/> 93.5V/60Hz	<input type="checkbox"/> VDC
	Vnom:	<input checked="" type="checkbox"/> 110V/50Hz	<input type="checkbox"/> VDC
	Vmax:	<input checked="" type="checkbox"/> 126V/50Hz	<input type="checkbox"/> VDC

2.3. EUT CONFIGURATION

Continuous printing message 24 points and reading in loop of 3 TAGs ink, additive cartridge and MI box.

Firmware-version

Boot: 1.0 1183
 CPU: 9029L_1.0 2034
 FPGA: 1.1.3
 RFID: 0.29



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1.3. Test Methodology

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 or ANSI C63.10, FCC Part 15 Subpart C.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

1.4. Test facility

Tests have been performed **from April 17 to 19, 2018.**

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4 and ANSI C63.10 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.