

EtherNet/IP™ Conformance Test Results

Test Information	
Test Date	February 11 2009
Composite Test Revision	6
ODVA File Number	10736
Test Type	<input checked="" type="checkbox"/> Single device <input type="checkbox"/> Product family* *The vendor-supplied list of product family members is attached to this report, if applicable.

Vendor Information	
Vendor Name	Racine Federated, Inc.
Vendor Address	

Device Information			
Device Information from Identity Object Instance* 1			
Identity Object Attribute		Value	
1	Vendor ID	1126	
2	Device Type	0	
	Device Profile Name	Generic Device	
4	Product Revision	2.010	
Identity Object Attribute		Value for Device 1	Value for Device 2
3	Product Code(s)	1	
7	Product Name(s)	TFX	
Product Family Members			
Product Code	Product Name	Tested Yes/No	

*For multiple instances, additional Device Information tables should be inserted into the report.

TSP **ODVA TTC**

Engineer Initials **JP**

Date **11 February 2009**

Test Result **Pass EtherNet/IP Conformance Composite 6**

Unit Under Test Setup:

SOC - Statement of Conformance Data [?] [X]

Enter/change device name:

File name (no extension):

Product name:

Vendor name: [v]

Device type: [v]

Product code:

Revision:

Conformance Tests [?] [X]

Test Mode
 Development
 Conformance
 Performance

Test Repetitions
 Times
 Stop On Error
 Run Continuously

Network Technology Tests

- Encapsulation
- Connection Manager
- TCP/IP Interface
- Ethernet Link
- Profile Verification
- Identity
 - Type 1 Reset
- Message Router
- DeviceNet
- Connection
- Acknowledge Handler
- Port

CIP Application Object Tests

<input type="checkbox"/> Discrete Input Point	<input type="checkbox"/> Analog Input Point	<input type="checkbox"/> S-Device Supervisor
<input type="checkbox"/> Discrete Output Point	<input type="checkbox"/> Analog Output Point	<input type="checkbox"/> S-Analog Sensor
<input type="checkbox"/> Discrete Input Group	<input type="checkbox"/> Analog Input Group	<input type="checkbox"/> S-Analog Actuator
<input type="checkbox"/> Discrete Output Group	<input type="checkbox"/> Analog Output Group	<input type="checkbox"/> S-Single Stage Control
<input type="checkbox"/> Discrete Group	<input type="checkbox"/> Analog Group	<input type="checkbox"/> S-Gas Calibration
<input type="checkbox"/> Presence Sensing		<input type="checkbox"/> S-Sensor Calibration
<input checked="" type="checkbox"/> Assembly		<input type="checkbox"/> Trip Point
<input type="checkbox"/> Register	<input type="checkbox"/> Motor Data	<input type="checkbox"/> Safety Supervisor
<input type="checkbox"/> Parameter	<input type="checkbox"/> Control Supervisor	<input type="checkbox"/> Safety Validator
<input type="checkbox"/> Parameter Group	<input type="checkbox"/> AC/DC Drive	<input type="checkbox"/> Safety Disc Input Pt
<input type="checkbox"/> Selection	<input type="checkbox"/> Overload	<input type="checkbox"/> Safety Disc Output Pt
<input type="checkbox"/> File	<input type="checkbox"/> Soft Start	<input type="checkbox"/> Safety Disc Input Gp
<input type="checkbox"/> Connection Config		<input type="checkbox"/> Safety Disc Output Gp
		<input type="checkbox"/> Safety Dual Chnl Output

Physical Conformance Data [?] [X]

Communication

Rates (M bits/sec):
 10 100 1000

Duplex:
 Half Full

Network address

MAC address:

IP address:

Communication setting

Rate:
 Switches Software Set Auto-negotiate

Duplex:
 Switches Software Set Auto-negotiate

Other:

EtherNet/IP performance levels

COTS Industrial

Supported LEDs

Module Combo Mod/Net
 Network I/O

Network configuration

BOOTP Client
 DNS Client
 DHCP Client
 DHCP-DNS Update
 Configuration Settable
 IP address switches

Other:

Connector style

Open Sealed

Copper:
 RJ-45 M12-4D

Direct connect to
 Yes No

Fiber:
 SC ST MT-RJ LC

OK Cancel

Conformance Test Details

1 Protocol Conformance Test

Protocol Test Software Revision	A6 (Sept 17 2008)
SOC File Name	RacineFederated.stc
Protocol Test Log File	10736.log
Result Pass/Fail	Pass

2 Physical Layer Test

If the product includes an LED identified by a label name defined in Chapter 9 of EtherNet/IP Adaptation of CIP, the product supports the LED. Supported LEDs must have the behaviors described below.

2.1 Indicator check: LEDs supported by this product	Yes/No
Module Status LED	No
Network Status LED	No

2.2 Module status LED operation	Pass/Fail
The DUT contains a red/green indicator for the module status.	N/A
The indicator is labeled "MS", "Mod", "Mod Status", or "Module Status".	N/A
Indicator operation (0.25 sec GREEN, then 0.25 sec RED at a self-test).	N/A

2.3 Network status LED operation	Pass/Fail
The DUT contains a red/green indicator for the network status.	N/A
The indicator is labeled "NS", "Net", "Net Status", or "Network Status".	N/A
Indicator operation (0.25 sec GREEN, then 0.25 sec RED at a self-test).	N/A

2.4 Network connector	Pass/Fail
The DUT has an RJ45, Sealed RJ45, M12-4 D, LC, SC, or ST connector	Pass

3 EDS File Test

The EDS file must not have errors according to EZ-EDS.

EDS File Utility	EZ-EDS 3.3
EDS File Name	0466000000010200.eds
EDS File Revision	1.0

3.0 EDS File Test		Pass/Fail
VendCode (must match Identity Object Attribute 1)	VendCode = 1126	Pass
ProdType (must match Identity Object Attribute 2)	ProdType = 0	Pass
ProdCode (must match Identity Object Attribute 3)	ProdCode = 1	Pass
MajRev (must match Identity Object Attribute 4, byte 0)	MajRev = 2	Pass
EZ-EDS Result		Pass

4 TCP/IP Interface Object Interoperability Test

The product must include the required attributes. The attribute value must match the product behavior.

4.0 TCP/IP Instance 0 Attributes				
Att	R/O	Reported Value	Comment	Pass/Fail/N/A
1	O	01 00	Revision of UINT	Pass
2	C ¹	Not supported	Max Instance of UINT	Pass
3	C ¹	Not supported	Number of Instances of UINT	Pass
4	O	Not supported	Optional Attribute List	N/A
5	O	Not supported	Optional Service List	N/A
6	O	Not supported	Maximum ID number Class Attrib	N/A
7	O	Not supported	Maximum ID number Inst. Attrib	N/A

1 – Required if the number of instances is greater than 1.

4.1 TCP/IP Instance 1 Attributes				
Att	R/O	Reported Value	Comment	Pass/Fail/N/A
1	R	01 00 00 00	Interface status of DWORD	Pass
2	R	00 00 00 00	Configuration capability of DWORD	Pass
3	R	00 00 00 00	Configuration control of DWORD	Pass
4	R	02 00 20 F6 24 01	Path to physical link object	Pass
5	R	64 67 A8 C0 00 FF FF FF 00 00 00 00 00 00 00 00 00 00 00 00 00 00	IP address of UDINT Network mask of UDINT Default gateway address of UDINT Primary name server of UDINT Secondary name server of UDINT Default domain name of STRING	Pass
6	R	00 00	Host Name of STRING	Pass
7	C ¹	Not supported	Safety Network Number of 6 octets	Pass
8	C ²	Not supported	TTL Value of USINT	N/A
9	C ²	Not supported	Alloc Control of USINT Reserved of USINT Num Mcast of UINT Mcast Start Addr of UDINT	N/A

1 – Required for safety devices. Prohibited for non-safety devices

2 – If either TTL Value or Mcast Config is implemented, both must be implemented

5 Ethernet Link Object Interoperability Test

The product must include the required attributes. The attribute value must match the product behavior.

5.0 Ethernet Link Instance 0 Attributes				
Att	R/O	Reported Value	Comment	Pass/Fail/N/A
1	C ¹	3	Revision of UINT	Pass
2	C ²	Not supported	Max Instance of UINT	Pass
3	C ²	Not supported	Number of Instances of UINT	Pass
4	O	Not supported	Optional Attribute List	N/A
5	O	Not supported	Optional Service List	N/A
6	O	Not supported	Maximum ID number Class Attrib	N/A
7	O	Not supported	Maximum ID number Inst. Attrib	N/A

1 – Required if the Revision value is greater than 1.

2 – Required if the number of instances is greater than 1.

5.1 Ethernet Link Instance 1 Attributes				
Att	R/O	Reported Value	Comment	Pass/Fail/N/A
1	R	64 00 00 00	Interface Speed of UDINT	Pass
2	R	0F 00 00 00	Interface flags of DWORD	Pass
3	R	00 40 9D 30 A6 95	MAC layer address of 6 USINT*	Pass
4	C ¹	Not supported	Interface counters of STRUCT of 11 UDINT	Pass
5	O	Not supported	Media Counters of STRUCT of 12 UDINT	N/A
6	O	Not supported	Interface Control of STRUCT	N/A
7	O	Not supported	Interface Type of USINT	N/A
8	O	Not supported	Interface State of USINT	N/A
9	O	Not supported	Admin State of USINT	N/A
10	C ²	Not supported	Interface Label of SHORT_STRING	N/A

1 – Required if the Media Counters attribute is implemented.

2 – Required if number of instances is greater than 1.

*Must contain valid MAC layer address

6 Port Scans

5.1 Ethernet Link Instance 1 Attributes		
Index	Protocol	Pass/Fail
1	TCP <nmap -n -v -r -p- DUTIP>	Pass
2	UDP <nmap -n -v -r -p- -sU DUTIP>	Pass
3	IP <nmap -n -v -sO DUTIP>	Pass

Table 1 Conformance Failures and Advisories

Test Item	Advisory or Failure	Explanation
		None observed.