

PCB: 907-0248-00 PCB ASSEMBLY
 PCBA: 907-0348-00 BLANK PCB
 907-0548-00 SCHEMATIC



TABLE 1: GENERAL SPECIFICATIONS

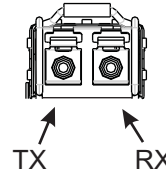
ELECTRICAL SPECIFICATIONS	MIN	TYP	MAX	UNITS
POWER VOLTAGE	4.5	5.0	5.5	Volts
POWER CURRENT		1.5	2.0	Amps
ETHERNET DATA RATES (AT RJ-45)	10, 100, 1000			Mb/s
ENVIRONMENTAL SPECIFICATIONS	MIN	TYP	MAX	UNITS
TEMPERATURE RANGE (OPERATIONAL)*	-10.0		60.0	Deg. Celsius
TEMPERATURE RANGE (STORAGE)	-40.0		85.0	Deg. Celsius
OPTICAL SPECIFICATIONS	MIN	TYP	MAX	UNITS
OPTICAL BAUDRATE (ALL UNITS)	625		3125***	Mbaud
OPTICAL WAVELENGTH**	850, 1310/1550, CWDM (1471-1611)			nm

* EXTENDED TEMPERATURE OPTIONS AVAILABLE
 ** WAVELENGTH IS SPECIFIED BY FULL PART NUMBER
 *** CONTACT FACTORY FOR 3125MBAUD VERSIONS

NOTES:

- INPUT POWER (+5VDC) MAY BE SUPPLIED FROM THE PC104 CONNECTOR, J7, OR THE MOLEX CONNECTOR, J3. MATING CONNECTOR FOR J3 IS A MOLEX HOUSING, P/N 26-03-4020, WITH CRIMP TERMINALS, P/N 08-52-0113.
- FULL DUPLEX 10/100/1000 Mbps ETHERNET IS SUPPORTED FOR < 10 KM OPTICAL LINKS.
- THE COPPER INTERFACE MEETS OR EXCEEDS THE IEEE 802.3AB STANDARD.
- ENSURE EXTERNAL CABLES MEET OR EXCEED CAT 5E EIA/TIA 568A(B) SPECIFICATIONS.
- 0.01% OF BANDWIDTH IS USED FOR DIAGNOSTICS, AVAILABLE THROUGH 907-0238-00 DIAGNOSTICS CARD.
- SEE TABLE 2 TO DETERMINE ETHERNET LINK STATUS.
 SEE TABLE 3 TO DETERMINE DIAGNOSTIC LED STATUS AND CONFIGURATION.
 SEE TABLE 4 TO CHANGE SYSTEM DIAGNOSTICS STATUS AND DATA TRANSFER RATES (SW1).
- SEE PAGE 2 FOR CARD DIMENSIONS AND MOUNTING HOLE INFORMATION. BOARD DIMENSIONS SHOWN ARE NOMINAL. MODEL 907 USES THE PC/104 FORM FACTOR ONLY.
- THERE ARE SIX DATA PORTS AVAILABLE THROUGH THE PC/104 CONNECTOR. THESE SIX DATA PORTS CAN BE USED WITH 907 EXPANSION CARDS TO ADD UP TO 48 SERIAL DATA CHANNELS OR 6 AIB PLUG-INS.
- SEE TABLE 5 FOR AVAILABLE WAVELENGTHS. PRESSURE TOLERANT AND EXTENDED TEMPERATURE OPTIONS AVAILABLE UPON REQUEST.

SFP PORT DESIGNATION (FRONT VIEW)



ZONE	ISSUE	DESCRIPTION	DATE	APPROVAL
ALL	A	PRELIMINARY RELEASE	2011 JAN	

TOP VIEW

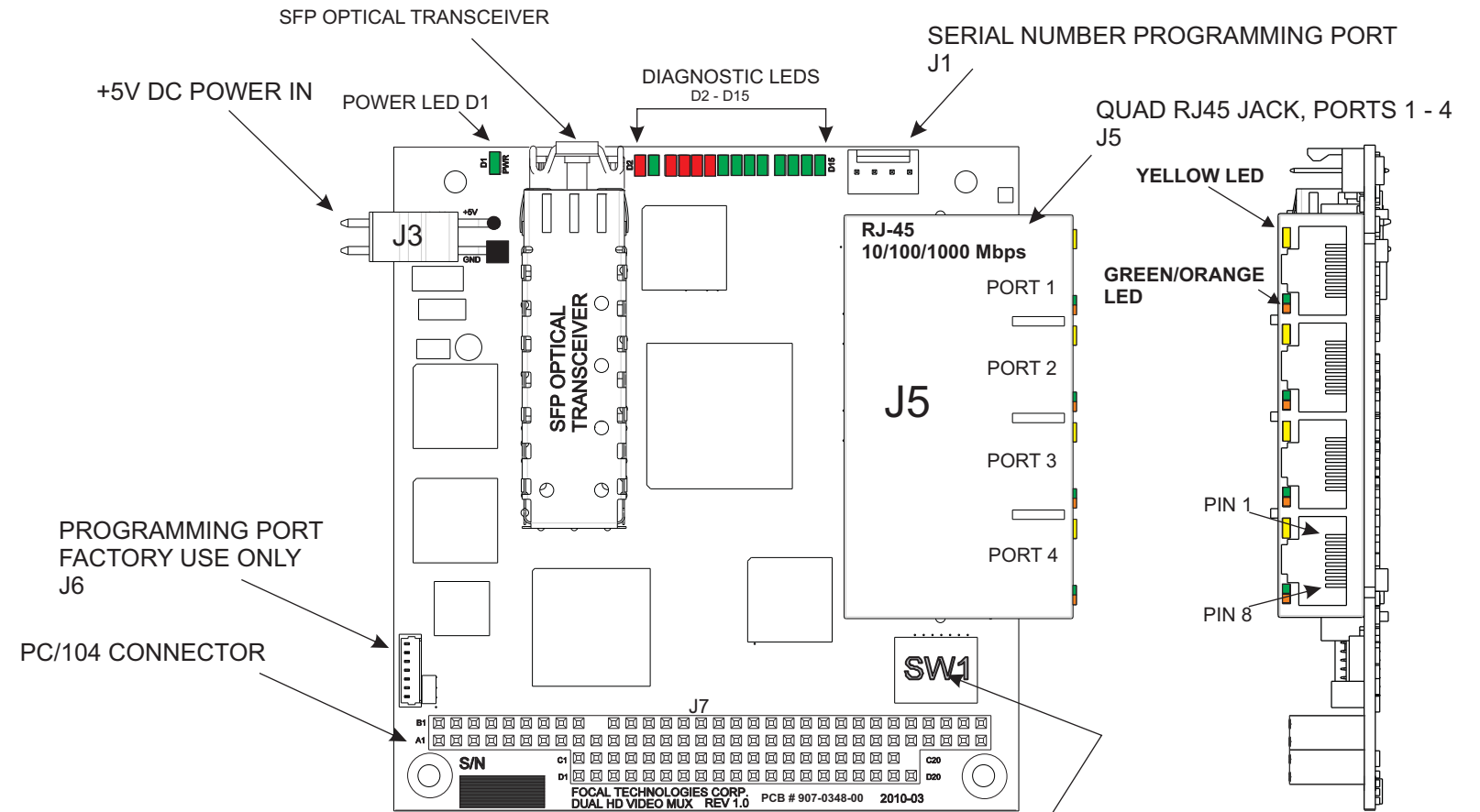


TABLE 2: RJ-45 LINK STATUS

LINKED	LED COLOR
10Mbps	ORANGE ONLY
100Mbps	YELLOW
1000Mbps	GREEN

SEE PAGE 2 FOR SW1 SETTINGS

TOLERANCES (EXCEPT AS NOTED)		THIS DRAWING IS THE PROPERTY OF FOCAL TECHNOLOGIES CORPORATION AND MAY BE NEITHER COPIED, REPRODUCED, OR OTHERWISE DEALT WITH NOR ITS CONTENTS COMMUNICATED TO OTHERS EXCEPT IN ACCORDANCE WITH WRITTEN INSTRUCTIONS RECEIVED FROM FOCAL TECHNOLOGIES CORPORATION.			
1. DIMENSIONS IN INCHES 2. 3 DECIMAL PLACES +/- 0.005 3. 2 DECIMAL PLACES +/- 0.010 4. FRACTIONS +/- 1/32 5. ANGLES +/- 0.5 DEGREE		DRAWN	B MCDONALD		
ESD SENSITIVE PARTS MAY BE USED. TAKE PRECAUTIONS.		CHECKED			
MATERIAL N/A		APPROVED	FOCAL TECHNOLOGIES CORPORATION 77 FRAZEE AVENUE DARTMOUTH, NS CANADA, B3B 1Z4		
FINISH N/A		DATE	2011 JAN 19		
SCALE NTS		FILENAME	907-2056-00RA.des		
		SHEET	1 OF 2		
		TITLE	907 GEM ETHERNET MUX CONFIGURATION		
		SIZE	B	TYPE	SK
		DRAWING NO.	907-2056-00		ISSUE
					A

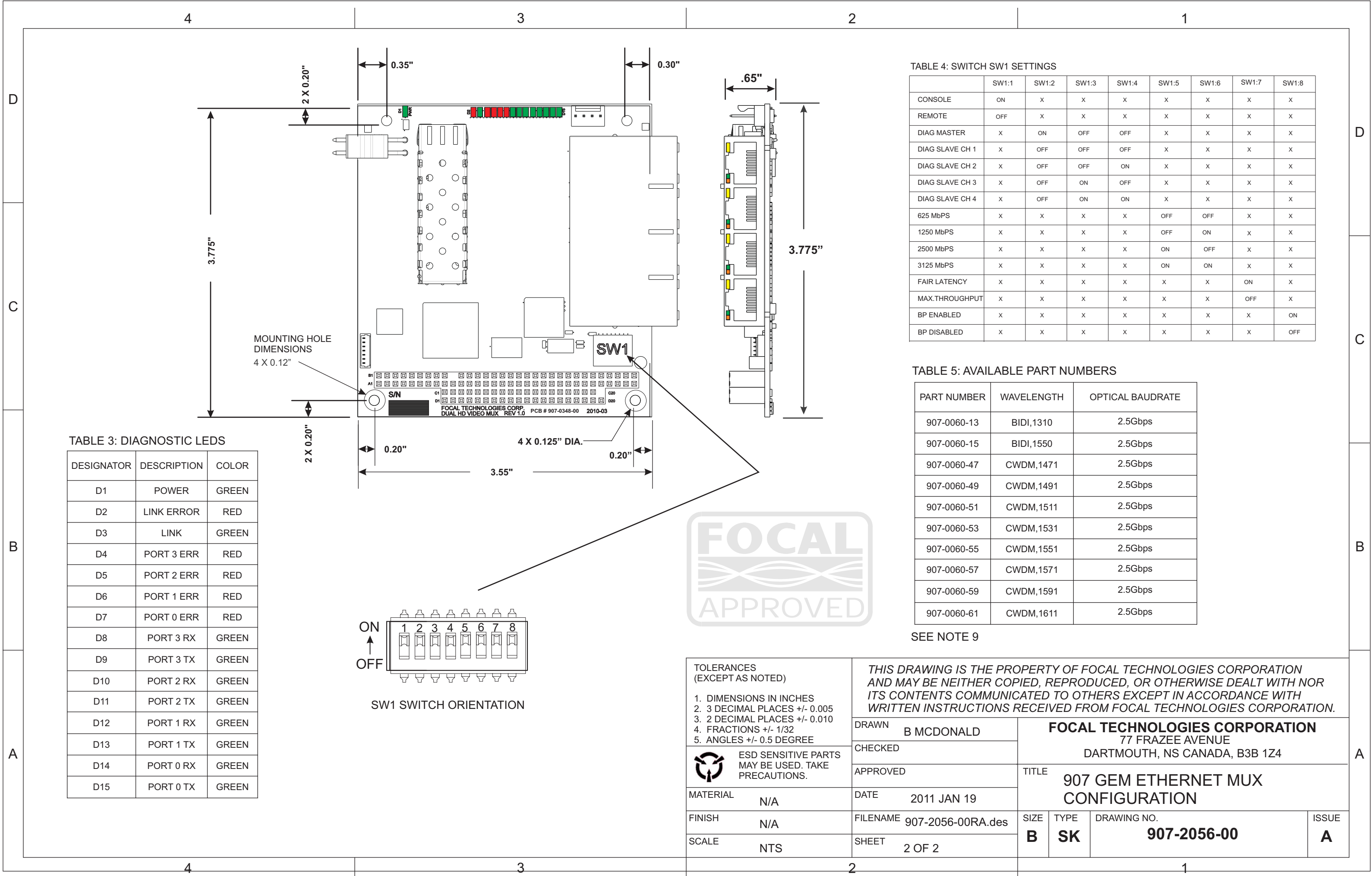


TABLE 3: DIAGNOSTIC LEDS

DESIGNATOR	DESCRIPTION	COLOR
D1	POWER	GREEN
D2	LINK ERROR	RED
D3	LINK	GREEN
D4	PORT 3 ERR	RED
D5	PORT 2 ERR	RED
D6	PORT 1 ERR	RED
D7	PORT 0 ERR	RED
D8	PORT 3 RX	GREEN
D9	PORT 3 TX	GREEN
D10	PORT 2 RX	GREEN
D11	PORT 2 TX	GREEN
D12	PORT 1 RX	GREEN
D13	PORT 1 TX	GREEN
D14	PORT 0 RX	GREEN
D15	PORT 0 TX	GREEN

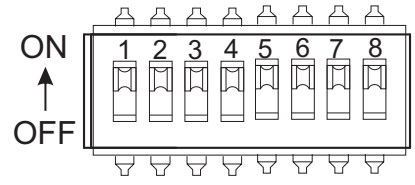
TABLE 4: SWITCH SW1 SETTINGS

	SW1:1	SW1:2	SW1:3	SW1:4	SW1:5	SW1:6	SW1:7	SW1:8
CONSOLE	ON	X	X	X	X	X	X	X
REMOTE	OFF	X	X	X	X	X	X	X
DIAG MASTER	X	ON	OFF	OFF	X	X	X	X
DIAG SLAVE CH 1	X	OFF	OFF	OFF	X	X	X	X
DIAG SLAVE CH 2	X	OFF	OFF	ON	X	X	X	X
DIAG SLAVE CH 3	X	OFF	ON	OFF	X	X	X	X
DIAG SLAVE CH 4	X	OFF	ON	ON	X	X	X	X
625 MbPS	X	X	X	X	OFF	OFF	X	X
1250 MbPS	X	X	X	X	OFF	ON	X	X
2500 MbPS	X	X	X	X	ON	OFF	X	X
3125 MbPS	X	X	X	X	ON	ON	X	X
FAIR LATENCY	X	X	X	X	X	X	ON	X
MAX.THROUGHPUT	X	X	X	X	X	X	OFF	X
BP ENABLED	X	X	X	X	X	X	X	ON
BP DISABLED	X	X	X	X	X	X	X	OFF

TABLE 5: AVAILABLE PART NUMBERS

PART NUMBER	WAVELENGTH	OPTICAL BAUDRATE
907-0060-13	BIDI,1310	2.5Gbps
907-0060-15	BIDI,1550	2.5Gbps
907-0060-47	CWDM,1471	2.5Gbps
907-0060-49	CWDM,1491	2.5Gbps
907-0060-51	CWDM,1511	2.5Gbps
907-0060-53	CWDM,1531	2.5Gbps
907-0060-55	CWDM,1551	2.5Gbps
907-0060-57	CWDM,1571	2.5Gbps
907-0060-59	CWDM,1591	2.5Gbps
907-0060-61	CWDM,1611	2.5Gbps

SEE NOTE 9



SW1 SWITCH ORIENTATION

TOLERANCES (EXCEPT AS NOTED)	
1. DIMENSIONS IN INCHES	
2. 3 DECIMAL PLACES +/- 0.005	
3. 2 DECIMAL PLACES +/- 0.010	
4. FRACTIONS +/- 1/32	
5. ANGLES +/- 0.5 DEGREE	
	ESD SENSITIVE PARTS MAY BE USED. TAKE PRECAUTIONS.
MATERIAL	N/A
FINISH	N/A
SCALE	NTS

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DRAWN B MCDONALD		<p>FOCAL TECHNOLOGIES CORPORATION 77 FRAZEE AVENUE DARTMOUTH, NS CANADA, B3B 1Z4</p>	
CHECKED			
APPROVED		TITLE	
DATE 2011 JAN 19		907 GEM ETHERNET MUX CONFIGURATION	
FILENAME 907-2056-00RA.des		SIZE	TYPE
SHEET 2 OF 2		B	SK
		DRAWING NO. 907-2056-00	
		ISSUE A	