

Selector Guide

Switch Cards for 7001, 7002

	No. of Channels	Card Config.	Contact Config.	Max. Voltage	Max. Current	Max. Power	Contact Potential	Max. Offset Current	Recomm. Frequency	Connection Type	CE	Comments
HIGH DENSITY												
7011-C	40	Multiplexer	2 form A	110V	1A	60VA	<1 μ V	<100pA	2MHz	Connector	Yes	Four independent 1x10 multiplexers, connection to backplane
7011-S	40	Multiplexer	2 form A	110V	1A	60VA	<500nV	<100pA	2MHz	Screw term.	Yes	Four independent 1x10 multiplexers, connection to backplane
7012-C	4x10	Matrix	2 form A	110V	1A	60VA	<1 μ V	<100pA	2MHz	Connector	Yes	Rows connect to analog backplane
7012-S	4x10	Matrix	2 form A	110V	1A	60VA	<500nV	<100pA	2MHz	Screw term.	Yes	Rows connect to analog backplane
7013-C	20	Isolated Switch	2 form A	110V	1A	60VA	<1 μ V	<100pA	10MHz	Connector	Yes	
7013-S	20	Isolated Switch	2 form A	110V	1A	60VA	<500nV	<100pA	10MHz	Screw term.	Yes	
7015-C	40	Multiplexer	2 form A	175V	34mA	0.3VA	<5 μ V	<1nA	500kHz	Connector	Yes	Solid state switch for high reliability
7015-S	40	Multiplexer	2 form A	175V	34mA	0.3VA	<5 μ V	<1nA	500kHz	Screw term.	Yes	Solid state switch for high reliability
7018-C	28	Multiplexer	3 form A	110V	1A	60VA	<5 μ V	<100pA	2MHz	Connector	Yes	3 pole switching
7018-S	28	Multiplexer	3 form A	110V	1A	60VA	<5 μ V	<100pA	2MHz	Screw term.	Yes	3 pole switching
7035	36	Multiplexer	2 form A	60V	1A	30VA	<1 μ V	<100pA	10MHz	Connector	Yes	9 independent 1x4 multiplexers
7036	40	Isolated Switch	1 form A	60V	1A	30VA	<4 μ V	<100pA	10MHz	Connector	Yes	40 independent channels of 1-pole switching
7111-S	40	Multiplexer	1 form C	110V	1A	60VA	<500nV	<100pA	2MHz	Screw term.	Yes	Four independent 1x10 multiplexers, connection to backplane

CONTROL

7019-C	Dual 3x6	Matrix	1 form A	200V	1A	10VA	<25 μ V	<100pA	2MHz	Connector	Yes	6-wire resistance measurements
7020	80	Digital I/O								Connector	Yes	40 inputs/40 outputs
7020-D**												
7021	30/20	Mux/ Digital I/O	2 form A	110V	1A	30VA	<3 μ V	<100pA	10MHz	Connector	Yes	Dual multiplexers. Up to 30 channels, 10 digital inputs, 10 digital outputs.
7037	30/20	Isolated/ Digital I/O	1 form A	110V	1A	30VA	<4 μ V	<100pA	10MHz	Connector	Yes	30 independent channels of 1-pole switching, 10 digital inputs, 10 digital outputs
7037-D**												
7065												Hall Effect measurement buffer card

RF

7062	Double 1x5	2 isolated switches	1 pole, 5 throw	24V	50mA	0.5VA	<20 μ V		500MHz	BNC	Yes	50 Ω unterminated
7063	Double 1x5	2 isolated switches	1 pole, 5 throw	5V	50mA	0.5VA	<20 μ V		500MHz	BNC	Yes	50 Ω terminated
7016A	Double 1x4	2 isolated switches	1 pole, 4 throw	30V	500mA	10VA	<6 μ V		2GHz	SMA	Yes	Optional 50 Ω termination
7017	Double 1x4	2 isolated switches	1 pole, 4 throw	30V	1A	10VA	<25 μ V		800MHz	SMA	Yes	10 ⁸ closures contact life.
7038	12	Three 1x4 multiplexers	1 pole, 1 of 4 tree	24V	10mA	10W @ 1.2GHz	<15 μ V		2GHz	75 Ω SMB receptacle	Yes	75 Ω unterminated

OPTICAL	No. of Channels	Fiber Type	Wavelength (nm)	Connector	Fiber Length
7090-4-1	1x4	Single mode fiber (SMF-28) 9/125	1290–1650	FC/APC	1 m
7090-4-2BH	1x4	Single mode fiber (SMF-28) 9/125	1290–1650	FC/SPC	Bulkhead connectors
7090-8-3	1x8	Single mode fiber (SMF-28) 9/125	1290–1650	FC/APC	1 m
7090-8-4	1x8	Multimode fiber 62.5/125	780–1350	FC/SPC	1 m

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HIGH CURRENT											
7053	10	Multiplexer	2 form A	300V	5A	100VA	<1mV	1MHz	Screw term.		
HIGH VOLTAGE											
7054	10	Multiplexer	1 form A	1000V	500mA	10VA		1MHz	Screw term.	Yes	
7154	10	Multiplexer	2 form A	1100V	500mA	10VA	<35 μ V	1MHz	Screw term.	Yes	
7169A	20	Isolated switch	1 form C	500V	500mA	10VA	<30 μ V	2MHz	Connector	Yes	Position sensitive. Use with 7002 only.
LOW CURRENT											
7058	10	Multiplexer	1 form C	200V	100mA		<250 μ V	<1pA	3MHz	2-lug triax	Yes Can also be used as a voltage switch
7152	4x5	Matrix	2 form A	200V	500mA	10VA	<20 μ V	<1pA	60MHz	Connector	Yes
7153	4x5	Matrix	2 form A	1300V	500mA	10VA	<50 μ V	<1pA	60MHz	Connector	Yes
7158	10	Multiplexer	1 form C	30V	100mA		<200 μ V	<1pA	1MHz	BNC	Yes
LOW VOLTAGE											
7059	10	Multiplexer	2 form A	200V	100mA	2VA	<1 μ V		3MHz	Screw term.	Yes
7064	20*	Multiplexer	2 form A	40V	100mA	2VA	<1 μ V		10MHz	Screw term.	Yes
7067	10	Multiplexer	4 form A	150V	350mA	10VA	<1 μ V		1MHz	Screw term.	Yes 4 wire resistance measurements
7168	8	Multiplexer	2 form A	10V	50mA		<30nV		1kHz	Screw term.	Yes
THERMOCOUPLE											
7014	39	Multiplexer	2 form A	110V	1A	60VA	<1 μ V	<100pA	2MHz	Screw term.	Yes Built-in cold junction ref.
7057A	9	Multiplexer	2 form A	42V	100mA	2VA	<1 μ V			Screw term.	Yes Built-in cold junction ref: -1mV/ $^{\circ}$ C (0mV at +30 $^{\circ}$ C)
GENERAL PURPOSE Can also be used with Models 705 and 706											
7052	4x5	Matrix	3 form A	200V	200mA	10VA	<5 μ V	<100pA	3MHz	Screw term.	Yes Switched High, Low, Guard
7056	10/20*	Multiplexer	2 form A	150V	250mA	10VA	<100 μ V		10MHz	Screw term.	Yes 10 channel 2-pole, 20 channel 1-pole
7066	10	Isolated switch	2 form A	350V	2A	125VA	<30 μ V		3MHz	Screw term.	Yes
7156-D	10/20*	Multiplexer	2 form A	150V	500mA	10VA	<100 μ V		3MHz	Connector	Yes
7164-D	20*	Multiplexer	2 form A	100V	500mA	10VA	<50 μ V		3MHz	Connector	Yes
7166	10	Isolated switch	2 form A	300V	750mA	30VA	75 μ V typ.		3MHz	Connector	Yes Mercury wetted contacts
PROTOTYPE & ADAPTER CARD Can also be used with Models 705 and 706											
7061	10										Prototyping

* When configured in 20 channel mode, use as one of 20 channel selector switch only.

** Cards with a -D suffix feature D-sub connectors.

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Switch Cards and Accessories for 707A, 708A

	No. of Channels	Card Config.	Contact Config.	Max. Voltage	Max. Current	Max. Power	Contact Potential	Offset Current	Max. Recomm. Frequency	Connection Type	CE	Comments
LOW CURRENT												
7072	8×12	Matrix	2 form A	200V	1A	10VA	<20μV	<1pA	15 MHz	3-lug triax	Yes	Optimized for semiconductor applications.
7072-HV	8×12	Matrix	2 form A	1300V	1A	10VA	<20μV	<1pA	4 MHz	3-lug triax		Optimized for semiconductor applications.
7174A	8×12	Matrix	2 form A	200V	2A			<100fA	30 MHz	3-lug triax	Yes	Optimized for semiconductor applications.
GENERAL PURPOSE												
7071	8×12	Matrix	3 form A	200V	500mA	10VA	<5μV	<100pA	3 MHz	Connector	Yes	Also provides screw terminal connection.
7071-4	Dual 4×12	Matrix	3 form A	200V	500mA	10VA	<5μV	<100pA	3 MHz	Connector	Yes	Screw terminals available on row connections.
7074-D	Eight 1×12	Multiplexer	3 form A	200V	500mA	10VA	<5μV	<100pA	5 MHz	Connector	Yes	
7075	Eight 1×12	Multiplexer	2 form A	110V	1A	30VA	<5μV	<100pA	30 MHz	Connector	Yes	
7076	Dual 4×12	Matrix	2 form A	110V	1A	30VA	<5μV	<100pA	15 MHz	Connector	Yes	
7077	Dual 8×12	Matrix	2 form A	42V	1A	30VA	<5μV	<100pA	15 MHz	BNC	Yes	Isolated BNC for differential systems.
HIGH FREQUENCY												
7073	8×12	Matrix	1-pole form A	200V	1A	30VA	<2μV	<200pA	30MHz	BNC	Yes	
7173-50	4×12	Matrix	2 form C	30V	0.5A	10VA	<15μV	<200pA	200MHz	BNC	Yes	
PROTOTYPE												
7070	96										Yes	7070 includes ribbon cable to extend backplane outside mainframe.
7070-PCA	96											

707A, 708A Switch Card Accessories

	Cables		Connectors		Adapters		Tools	
7071, 7071-4	7078-MTC-5	7078-MTC-20	7078-KIT	7078-MTR			7078-CIT	7078-HCT
7072	7078-TRX-3	7078-TRX-10			237-TRX-T	7078-TRX-BNC		
7174A	7078-3	7078--10			237-TRX-T	7078-TRX-BNC		
7072-HV	7078-TRX-3	7078-TRX-10			7078-TRX-BNC	237-TRX-T		
					7078-TRX-GND	237-TRX-TBC		
7073	7051-2, -5, -10	7754-3			7755			
7074-D	7074-MTC-20 (cols.)	7078-MTC-5 (rows)	7074-KIT (cols.)	7078-KIT (rows)		7074-CIT		7074-HCT
	7078-MTC-20 (rows)	7074-MTR (cols.)	7078-MTR (rows)	7074-RTC	7078-CIT	7078-HCT		
7075	7075-MTC	7076-CMTC	7076-RMTC					
7076	7075-MTC	7076-CMTC	7076-RMTC					
7173-50	7173-50-CSEP							

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SWITCHING & CONTROL