7702 40-Channel Differential Multiplexer

GENERAL

40 CHANNELS: 40 channels of 2-pole relay input. All channels configurable to 4-pole.

2 CHANNELS: 2 channels of current only input.

RELAY TYPE: Latching electromechanical.

ACTUATION TIME: <3ms.

CAPABILITIES

CHANNELS 1-40: Multiplex one of 40 2-pole or one of 20 4-pole signals into DMM.

CHANNELS 41-42: Multiplex one of 2 2-pole current signals into DMM.

INPUTS

MAXIMUM SIGNAL LEVEL:

Channels (1-40): 300V DC or rms, 1A switched, 60W, 125VA maximum. Channels (41-42): 60V DC or 30V rms, 3A switched, 60W, 125VA maxi-

CONTACT LIFE (typ): >105 operations at max signal level. >108 operations no load.1

CONTACT RESISTANCE: <1 at end of contact life.

CONTACT POTENTIAL: $<\pm500 nV$ typical per contact, $1\mu V$ max.

 $<\!\!\pm500nV$ typical per contact pair, $1\mu V$ max.

OFFSET CURRENT: <100pA.

CONNECTOR TYPE: Screw terminal, #20 AWG wire size.

ISOLATION BETWEEN ANY TWO TERMINALS: $>10^{10}$, <100 pE

ISOLATION BETWEEN ANY TERMINAL AND EARTH: $>10^9$, <200 pE

CROSS TALK (10MHz, 50 Load): <-40dB.

INSERTION LOSS (50 Source, 50 Load): <0.1dB below 1MHz. <3dB below 2MHz.

COMMON MODE VOLTAGE: 300V between any terminal and chassis.

ENVIRONMENTAL

OPERATING ENVIRONMENT: Specified for 0° C to 50° C. Specified to 80% R.H. at 35°C.

STORAGE ENVIRONMENT: -25°C to 65°C.

WEIGHT: 0.5kg (1.1 lb).

Specifications subject to change without notice.

LO Card Sense (see Note) Backplane isolation Channel 43 d 2-Pole (Open) 4-Pole (Closed) (see Note) To Model 2700 Backplane OLO (Channels 22-39) AMPS Channels 43–45 in this schematic refer to the designations used for control and not actual available channels. NOTE For more information, refer to the ROUTe:MULTiple command section in the Model 2700 User's Manual. Channels 44 and 45 can be individually controlled using ROUTe:MULTiple if the module is not to be connected to the internal DMM.

^{1.} Minimum signal level 10mV, 10uA.