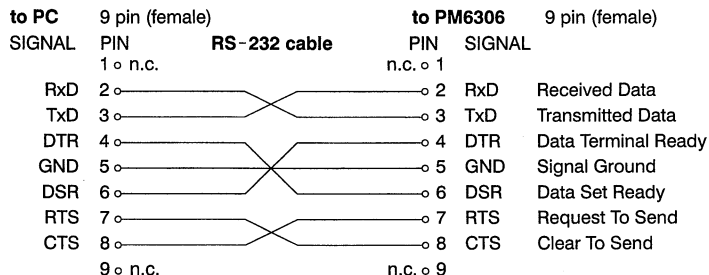


IEEE-488 INTERFACE

AH1 acceptor handshake
SH1 source handshake
L4 listener function
T6 talker function
RL1 local/remote
 with local lockout
SR1 service request (SRQ)
DC1 device clear
DT1 device trigger
PPO no parallel poll
CO no controller function
E2 tri-state drivers

Addresses: 1 to 30

RS-232 INTERFACE



Baud rate: 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200

Data bits: 7 or 8

Stop bits: 1 (2 for 110 baud only)

Parity: odd, even or no

Xon/Xoff handshake: on or off

Hardware connection: 3 or 7 wires

Hardware handshake: DSR/DTR or CTS/RTS

Special Interface Functions

IEEE-488	RS-232
GTL go to local	ESC 1
GTR go to remote control	ESC 2
DCL device clear	ESC 4
LLO local lockout	ESC 5
*STB? read status byte query	ESC 7
DTR device trigger	ESC 8

Common Commands and Queries in Accordance with IEEE-488.2

*CLS Clear Status Command	*RST Reset Command
*ESE Event Status Register Enable	*SAV Save Command
*ESR? Standard Event Status Register Query	*SRE Service Request Enable
*IDN? Identification Query	*STB? Read Status Byte
*LRN? Learn Mode	*TRG Trigger Command
*OPC Operation Complete Command	*TST? Selftest Query
*RCL Recall Command	*WAI Wait-to-Continue

Device Specific Commands

Normal operation:

MODE?	asks for measurement mode
AUTO	automatic measurement mode
SER	sets series measurement mode
PARAL	sets parallel measurement mode
PARAM?	asks for selected parameter
PARAM QUA	quality factor is displayed
PARAM DISS	dissipation factor is displayed
PARAM PHA	phase angle is displayed
PARAM IMP	impedance is displayed
PARAM VOL	voltage is displayed
PARAM CUR	current is displayed
PARAM AUTO	switches to measurement mode selected before
FRE	sets test signal frequency
FRE?	asks for test signal frequency
LEV?	asks for test signal voltage
LEV LO	test signal 50 mV AC or 300 mV DC
LEV HI	test signal 2 V
LEV NO	test signal 1 V
DC_BIAS?	asks for DC bias
DC_BIAS OFF	DC bias off
DC_BIAS INT	DC bias internal
DC_BIAS EXT	DC bias external
AVG?	asks for averaging
AVG ON	increased averaging
AVG OFF	normal averaging

TEST_SIG?	asks for test signal
TEST_SIG AC	AC test signal
TEST_SIG DC	DC test signal
COM?	asks for dominant/secondary parameter
RESI?	asks for resistance value
CAP?	asks for capacitance value
INDU?	asks for inductance value
IMP?	asks for impedance value
QUAL?	asks for quality factor value
DISS?	asks for dissipation factor value
PHA?	asks for phase angle value
VOL?	asks for measured voltage
CUR?	asks for measured current
TRIM	open/short-circuit trimming
CON	continuous measurements
SIN	single measurement
TRIG	starts single measurement
MEA_FAST?	asks for fast measurement
MEA_FAST ON	fast measurement on
MEA_FAST OFF	fast measurement off
RNG_HOLD?	asks for hold function
RNG_HOLD ON	gain factor is fixed
RNG_HOLD OFF	internal gain factor is automatically determined
ERR?	asks for error message

Binning:

BIN ON	binning mode on
BIN OFF	normal measurement mode
BIN	allocates data to selected bin
BIN?	asks for the bin the component is allocated to
BIN_DISABLE	disables selected bin
BIN_ENABLE	enables selected bin
BIN_SET?	asks for selected bin set
BUF_BIN?	asks for the selected bin from the buffer for editing
BUF_CLR	deletes buffer for editing
BIN_ERA	deletes selected bin set
BIN_STO	stores bin set
BIN_RCL	loads bin set into register 0 for binning
BUF_RCL	loads bin set into buffer for editing
BIN_ABS	input of absolute value
BIN_REL	nominal value, tolerance in %
RESI <NRf>	resistances, nominal
CAP <NRf>	capacitances, nominal
INDU <NRf>	inductances, nominal
IMP <NRf>	impedances, nominal
QUAL <NRf>	quality factor, normal
DISS <NRf>	dissipation factor, nominal
PHA <NRf>	phase angle, nominal
for input of absolute values skip <NRf> <NRf> means flexible numeric representation, e.g. RESI 1000 or RESI 1000.0 or RESI 1.0E3 for 1 kOhms	
LIM_HI	upper limit
LIM_LO	lower limit