Figure 1: Connector Pin-Out

View looking in to the connector face

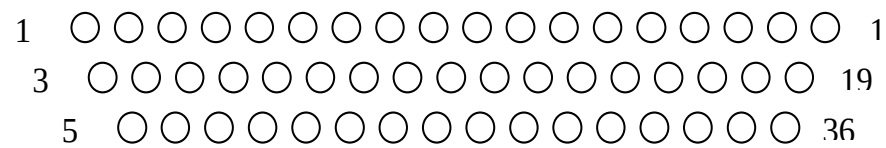

Table 1: Signal Descriptions

Pin #	Signal Name	Input/ Output	Function	Definition
P1-1	EXT_PWR	INPUT	Camera POWER	DC VOLTAGE FROM 9-28V, WITH 12V NOMINAL
P1-2	EXT_PWR	INPUT	Camera POWER	DC VOLTAGE FROM 9-28V, WITH 12V NOMINAL
P1-3	**EXT_PWR RTN**	INPUT	POWER RETURN	0V
P1-4	DIG_VID2	OUTPUT	BIT 3 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-5	LVLMODE	INPUT	ANALOG CONTROL OF THE LEVEL MODE OF Camera	**LVLMODE** = **GND**, MANUAL MODE SELECTED **LVLMODE** = N/C, AUTO MODE SELECTED (ESD PROTECTED)
P1-6	DIG_VID5	OUTPUT	BIT 6 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-7	GNMODE	INPUT	ANALOG CONTROL OF THE GAIN MODE OF Camera	**GNMODE** = **GND**, MANUAL MODE SELECTED **GNMODE** = N/C, AUTO MODE SELECTED (ESD PROTECTED)
P1-8	DIG_VID8	OUTPUT	BIT 9OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-9	**System Ground**	OUTPUT	Signal Reference	0V
P1-10	DIG_VID11	OUTPUT	BIT 12 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-11	POLARITY	INPUT	ANALOG CONTROL OF POLARITY OF Camera	**POLARITY** = **GND**, BLACK HOT MODE SELECTED **POLARITY** = N/C, WHITE HOT MODE SELECTED (ESD PROTECTED)
P1-12	DIG_VID14	OUTPUT	BIT 15 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-13	N/C			
P1-14	SERIAL TxD	OUTPUT	RS232 TRANSMIT SIGNAL	EIA/RS-232 (ESD PROTECTED)
P1-15	SERIAL RxD	INPUT	RS232 RECEIVE SIGNAL	EIA/RS-232 (ESD PROTECTED)
P1-16	**System Ground**	OUTPUT	Signal Reference	0V
P1-17	NTSC VID	OUTPUT	NTSC ANALOG VIDEO	SMPTE-170 Standard
P1-18	485_232BAR	INPUT	RS232 OR RS485 CONFIGURATION	**485_232BAR** = **+5V**, RS485 PROTOCOL SELECTED **485_232BAR** = N/C, RS232 PROTOCOL SELECTED (ESD PROTECTED)
P1-19	EXT_PWR	POWER	Camera POWER	DC VOLTAGE FROM 9-28V, WITH 12V NOMINAL
P1-20	**EXT_PWR RTN**	INPUT	POWER RETURN	0V
P1-21	DIG_VID1	OUTPUT	BIT 2 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-22	N/C			
P1-23	MAN_LVL	INPUT	ANALOG CONTROL OF THE MANUAL LEVEL OF Camera	SIGNAL FROM **GND** TO **+5V**. 10K POT USED TO VARY VOLTAGE LEVEL (ESD PROTECTED)
P1-24	DIG_VID4	OUTPUT	BIT 5 OF 16 BIT DIGITAL	TTL SIGNAL (ESD PROTECTED)

			VIDEO	
P1-25	MAN GAIN	INPUT	ANALOG CONTROL OF THE MANUAL GAIN OF Camera	SIGNAL FROM **GND** TO **+5V**. 10K POT USED TO VARY VOLTAGE LEVEL (ESD PROTECTED)
P1-26	DIG_VID7	OUTPUT	BIT 8 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-27	N/C			
P1-28	DIG_VID10	OUTPUT	BIT 11 OF 16 BIT DIGITAL VIDEO (BIT 0 LSB)	TTL SIGNAL (ESD PROTECTED)
P1-29	**System Ground**	OUTPUT	Signal Reference	0V
P1-30	DIG_VID13	OUTPUT	BIT 14 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-31	N/C			
P1-32	CLOCK_B	OUTPUT	PIXEL CLOCK OF Camera	6.07MHz PIXEL CLOCK SEE FIGURE 2 FOR MORE DETAILS (ESD PROTECTED)
P1-33	+5V	OUTPUT	SYSTEM +5V	+5V FROM SYSTEM. USED FOR ANALOG CONTROL SIGNALS (100mA)
P1-34	**System Ground**	OUTPUT	Signal Reference	0V
P1-35	FIELD_B	OUTPUT	FIELD CLOCK OF SYSTEM	59.94Hz CLOCK SEE FIGURE 2 FOR MORE DETAILS (ESD PROTECTED)
P1-36	EXT_PWR	POWER	Camera POWER	DC VOLTAGE FROM 9-28V, WITH 12V NOMINAL
P1-37	**EXT_PWR RTN**	INPUT	POWER RETURN	0V
P1-38	DIG_VID0	OUTPUT	BIT 1 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-39	EXT_FIELD	INPUT	EXTERNAL SYNC INPUT	TTL SIGNAL, 29.97Hz SQUARE WAVE
P1-40	DIG_VID3	OUTPUT	BIT 4 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-41	**System Ground**	OUTPUT	Signal Reference	0V
P1-42	DIG_VID6	OUTPUT	BIT 7 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-43	N/C			
P1-44	DIG_VID9	OUTPUT	BIT 9 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-45	FOCUS-	INPUT	FOCUS FAR CONTROL FOR LENS ASSEMBLY	FOCUS- = **GND**, LENS MOTOR FOCUSES NEAR FOCUS- = N/C, NO MOTOR CONTROL (ESD PROTECTED)
P1-46	DIG_VID12	OUTPUT	BIT 13 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-47	FOCUS+	INPUT	FOCUS NEAR CONTROL FOR LENS ASSEMBLY	FOCUS+ = **GND**, LENS MOTOR FOCUSES FAR FOCUS+ = N/C, NO MOTOR CONTROL (ESD PROTECTED)
P1-48	DIG_VID15	OUTPUT	BIT 16 OF 16 BIT DIGITAL VIDEO	TTL SIGNAL (ESD PROTECTED)
P1-49	**System Ground**	OUTPUT	Signal Reference	0V
P1-50	HDRIVE_B	OUTPUT	LINE CLOCK FOR Camera	BUFFERED HDRIVE SIGNAL SEE FIGURES 2,3 FOR MORE DETAILS (ESD PROTECTED)
P1-51	VDRIVE_B	OUTPUT	FRAME CLOCK FOR Camera	BUFFERED VDRIVE SIGNAL SEE FIGURES 2,3 FOR MORE DETAILS (ESD PROTECTED)