

DYNAMIC ENGINEERING

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Est. 1988

User Manual

Cable Assembly Crypto Tape

Interface Adapter for IP-Crypto and IP-Tape

Manual Revision 2p1 12/28/23
PCB 10-2004-0104



CRYPTO

PARALLEL I/O

WWW.DYNENG.COM

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1PBK3
10-2004-0102
CRYPTO/TAPE
CONNECTOR BOARD
WWW.DYNENG.COM

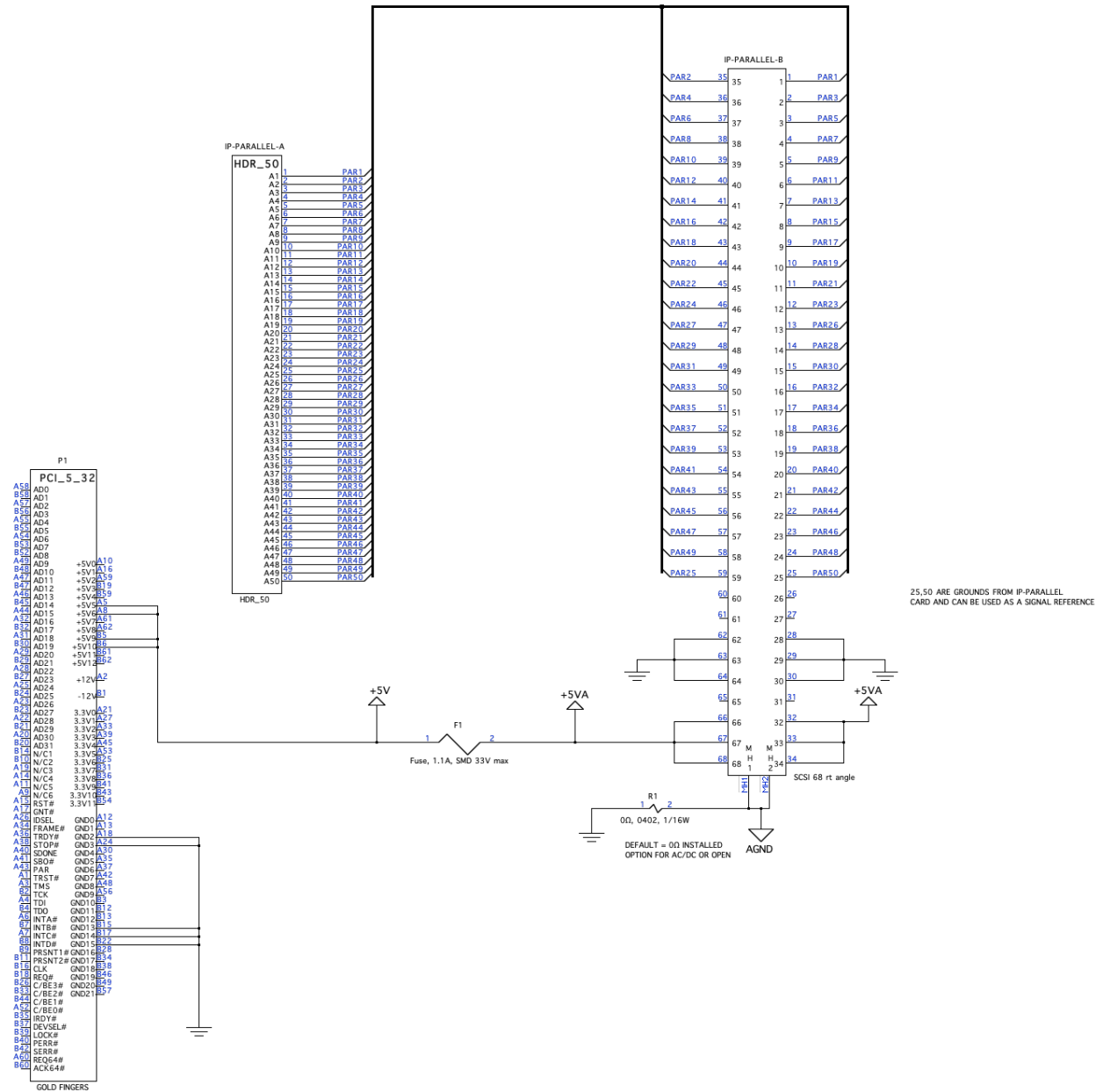
IP-CRYPTO-B

IP-CRYPTO-A

IP-CRYPTO-C

IP-CRYPTO-D

The Header for IP-Tape is wired to the SCSI connector with four quadrants. The SCSI connector has 68 pins and dedicated pins for differential pairs. The header



has 50 pins and is wired 1:1 with the IP IO connector. The odd pins [IP] 1-24 are connected to 1-12, the even pins on 35-46. Pin 25 is frequently a ground pin and is moved to 59, pin 50 is also a ground frequently and is located on the SCSI connector pin 25 [opposite 59]. The odd pins starting with 27 are aligned with 47-58. The remaining even pins start at 13. The reason for the pairing is that 1,35, 2-36 etc. are differential pairs in the SCSI cable. The IP-Parallel with 485 IO make use of pairs which become aligned with this arrangement. The Tape interface is TTL; the pin organization is of less consequence.

In addition to the IP signals, +5V is provided as well as additional ground pins to allow low current devices to be powered via the cable. The power is supplied by the PC power supply via the edge connector and protected with a 1.1A self-healing fuse.

The SCSI shield and RJ45 Shield [if installed] are tied together and have the option for being AC, DC, or open coupled to the local ground. The default is DC connection to ground.

The Crypto interface is much smaller [pin count] and utilizes the RJ45 connector.

If you place IP-Crypto in Slot B and the Tape in slot C of PCI3IP the cables will route nicely to Cable-Assembly-Crypto-Tape. 10" ribbon cables are supplied. It is intended the connector board is mounted in the adjacent slot to the carrier in use.

With a mixed backplane PCIe3IP can be used instead of PCI3IP with Cable-Assembly-Crypto-Tape in an adjacent PCI position.

Pinouts for IP-Crypto ⇔ Crypto Unit

Signal	IP-Crypto	RJ-45	Crypto Unit
Transfer Request	1	8	C
Vref	25	1,2	A
GND	50	3,4	
Data In	27	7	D
CLK In	28	6	E
Switch In	29	5	B

Pinouts for IP-Tape ⇔ Bezel

Signal	IP-Tape	SCSI{Bezel}
Address 0	1	1
Address 1	2	35
Address 2	3	2
Address 3	4	36
Address 4	5	3
Address 5	6	37
Address 6	7	4
Address 7	8	38
Address 8	9	5
Address 9	10	39
Address 10	11	6
Address 11	12	40
Address 12	13	7
Address 13	14	41
Address 14	15	8
Address 15	16	42
Address 16	17	9
Address 17	18	43
Address 18	19	10
Address 19	20	44
Address 20	21	11
Address 21	22	45
Data 0	23	12
Data 1	24	46
Gnd	25	59

Pinouts for IP-Tape ↔ Bezel

Signal	IP-Tape	SCSI{Bezel}
Data 2	26	13
Data 3	27	47
Data 4	28	14
Data 5	29	48
Data 6	30	15
Data 7	31	49
Data 8	32	16
Data 9	33	50
Data 10	34	17
Data 11	35	51
Data 12	36	18
Data 13	37	52
Data 14	38	19
Data 15	39	53
Parity	40	20
DTC_DECn	41	54
DTC_ENA	42	21
RW	43	55
ENABLEn	44	22
Status 0	45	56
Status 1	46	23
Status 2	47	57
Status 3	48	24
Status 4	49	58
GND	50	25
GND		28-30,62-64
+5V		32-34,66-68

If you use Cable-Assembly-Crypto-Tape with an alternate IP the signal names for the IP pin will be substituted for those shown. Contact Dynamic Engineering for custom versions with alternate connectors and configurations.

Order Information

Cable_Assem_Crypto/Tape standard configurations.

<https://www.dyneng.com/Cable-Assembly-Crypto-Tape.html>

Cable-Assembly-Crypto-Tape

Interface adapter for carrier with 2x 50 Pin headers for use with IP-Crypto and IP-Tape or alternate IPs. Interconnects Carrier Headers with SCSI – 68 pin connector and RJ45 mounted to a PCI Bezel. Bezel, 2 10" ribbon cables, and connector board are included with Cable-Assembly-Crypto-Tape.

<https://www.dyneng.com/Cable-Assembly-Crypto-Tape.html>

Tools for IPs and related

IP-Debug-Bus - IP Bus interface extender with test points, isolated power and quickswitch technology to allow hot swapping of IPs or power cycling without powering down the host.

<https://www.dyneng.com/ipdbgbus.html>

IP-Debug-IO II - IndustryPack IO connector breakout with testpoints, ribbon cable headers, and locations for user circuits.

<https://www.dyneng.com/ipdbgio.html>

HDRterm50 - Ribbon cable compatible 50 pin header to 50 screw terminal header. Comes with DIN rail mounting capability.

<https://www.dyneng.com/HDRterm50.html>

PCI3IP - 1/2 length PCI card with 3 IP slots.

<https://www.dyneng.com/PCI3IP.html>

IP-MTG-KIT – 4 metric stainless screw and stand-off pairs to retain IP Modules against the carrier board. Flat head screws match IP Specification mounting requirements.

<https://www.dyneng.com/IPHardware.html>

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