

Mil1394 - Physical Layer

Active Transformers	external	external	external
38999 Connectors	external	external	external

Mil1394 - Transmit

Protocol Encapsulation	Software	Software	Software/ Hardware
Transmit Mechanism	processor driven write	OHCI	Enhanced OHCI
STOF Offset Timing	Software	Software	Hardware
TX Offset Accuracy	Software, OS Latency	Software, OS Latency	Hardware
configurable TX streams (OHCI contexts)	-	Software	Enhanced OHCI
<i>linked & looped</i>	-	Software	Enhanced OHCI
Automated Packet Manipulation			
<i>Data Manipulation</i>			
VPC Generation	Software	Software	Hardware
Heartbeat	Software	Software	Hardware
Vehicle Time	Software	Software	Hardware
User Defined	No	No	Hardware
<i>Data Origination</i>			
Integrated Memory	No	No	Yes
Host Memory	Yes	Yes	Yes
Automated Data Assembly			
Command List Processing	No	No	Yes

Mil1394 - Receive

Protocol Encapsulation	Software	Software	Software/ Hardware
Reception Mechanism	processor driven read	OHCI	Enhanced OHCI
STOF Offset verification	Software	Software	Hardware
Channel filtering	Software	Software	Hardware
MessageID filtering	Software	Software	Hardware
configurable RX streams (OHCI contexts)	-	OHCI	Enhanced OHCI
Frame Synchronization			
<i>RX STOF packets</i>	Software	Software	Hardware
<i>External Sync Signal</i>	-	-	Hardware
<i>Internal Clock</i>	Software	Software	Hardware
VPC Verification			
<i>skip incorrect packet</i>	Software	Software	Hardware
<i>mark incorrect packet</i>	Software	Software	Hardware
<i>ignore incorrect packet</i>	Software	Software	Hardware
Timestamping			
<i>1394 Timebase</i>	Cycle Time	Cycle Time	Cycle Time
<i>AS5643 Timebase</i>	No	No	Frame Offset + Number
<i>IRIGB Input Timebase</i>	No	No	Yes
<i>free running</i>	Software, OS Latency	Software, OS Latency	Hardware Clock
Automated Packet Manipulation			
<i>Data Manipulation</i>			
Counters	No	No	Hardware
User Defined	No	No	Hardware
<i>Data Destination</i>			
Integrated Memory	No	No	Yes
Host Memory	Yes	Yes	Yes
Automated Data Assembly			
Signal Extractor	No	No	Command Lists
Command List Processing	No	No	Hardware

■ superior ■ average ■ limited

objective used for rating: Advanced 1394b and AS5643 interface requirements, system simulation, data recording, system monitoring,