

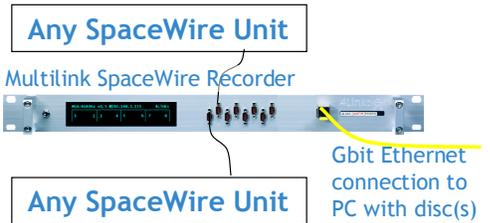
Multi-link SpaceWire Recorder (MSR)



Record time-tagged packets in both directions for multiple links

Product brief

The Multi-Link SpaceWire Recorder (MSR) enables passive recording of SpaceWire transfers, on up to four links per MSR unit. It monitors packets in both directions on each SpaceWire link, adding time tags at the start and end of each packet, and sending the data to a computer for recording and analysis. Software is provided to help manage and search the recordings. The MSR brings to SpaceWire the comprehensive records that are available from earlier and much slower on-board technologies such as MIL1553.



- Use the MSR for recording protocol sequences/transactions over a single link, for subsequent analysis;
- Use it to record traffic on up to four independent SpaceWire links per MSR unit;
- Or use several MSR units to record the SpaceWire data transfers over an entire SpaceWire system.

Time-tagged records

The example trace below shows the time tags at the start of each packet, together with the detail of the last packet received on Port 3. With the RG408-ls and RG408-ms platforms, time tags can be synchronized across an entire SpaceWire test system so that all the records are coordinated even if the recordings are stored on different computers.

Software

Full software support is provided for recording the data, and to help managing and searching the recordings, both with a graphical user interface (as shown below) and with pure text files.

Watch for SpaceWire errors

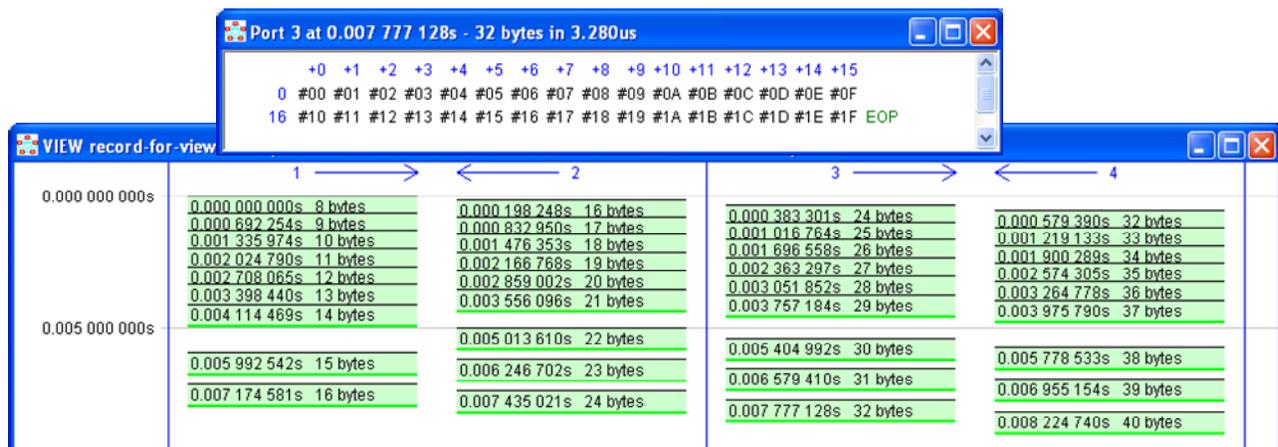
As well as recording the data flowing over a SpaceWire link, the MSR can optionally be set to trigger a waveform capture of the wire signals on a variety of events, including low-level SpaceWire errors.

Product codes

The Multi-link SpaceWire Recorder is available for recording data from two or four links, and in a variety of platforms.

Platform	RG408-l	RG408-ls	RG408-m	RG408-ms
Two monitored links	MSR-RG402/4-l	MSR-RG402/4-ls	MSR-RG402/4-m	MSR-RG402/4-ms
Four monitored links	MSR-RG404/4-l	MSR-RG404/4-ls	MSR-RG404/4-m	MSR-RG404/4-ms

The platforms suffixed -ls and -ms enable any number of units (MSR, DSI or SPG) to be synchronized, to within ± 3 ns.
Time Tags are included in all MSR products.
Event Waveforms are available as option EW.



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