

SCN-46 S-line Scan 416

Basic characteristic

- ▲ **S-line Scan 416** is interrogator with 16 optical channels consisting of S-line Scan 400 module and S-line Switch 1x16 module.
- ▲ **S-line Scan 416** is extendable with S-line Splitter or Computer modules.
- ▲ **S-line Scan 416** is provided with Sentinel 2.0 measurement software.
- ▲ **S-line Scan 416** can be simply re-configured into S-line Scan 404 or S-line Scan 436 by replacing the 1x16 switch with 1x4 or 1x36 switch modules.



Performance properties

| | | |
|----------------------------------|--------------------------------|--------------------------------------------|
| Number of channels | | 16 |
| Scanning frequency ¹⁾ | | 0.5Hz (32 seconds through all 16 channels) |
| Wavelength range | | 40nm (1528-1568nm) |
| Operational Temperature range | | -5°C to +50°C |
| Storage Temperature range | | -10°C to +60°C |
| Dynamic range ²⁾ | | 15dB |
| Power budget ³⁾ | | 15dB |
| Accuracy | @ 25°C // @ FOTR ⁴⁾ | TBT // ±20pm |
| Repeatability (Precision) | @ 25°C // @ FOTR ⁴⁾ | 8pm // 15pm |
| Resolution | | 1pm |
| Laser Class | IEC 60825-1 | 1 |

1) Slower data logging is available through down sampling.

2) Maximum attenuation that can be inserted in the optical line between the interrogator and the measured FBG, or series of FBG's on a same power level (see [Figure 1](#))

3) Maximum attenuation that can be inserted between the FBG's with the highest and lowest power level in one channel (see [Figure 2](#))

4) FOTR = Fully Operational Temperature Range (-5°C to +50°C).

All parameters tested with FBG's FWHM 200pm and 40% Reflectivity.

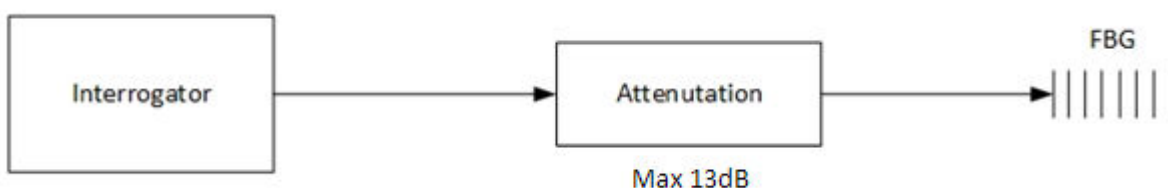


Figure 1: Max. allowed attenuation within optical line (bidirectional)

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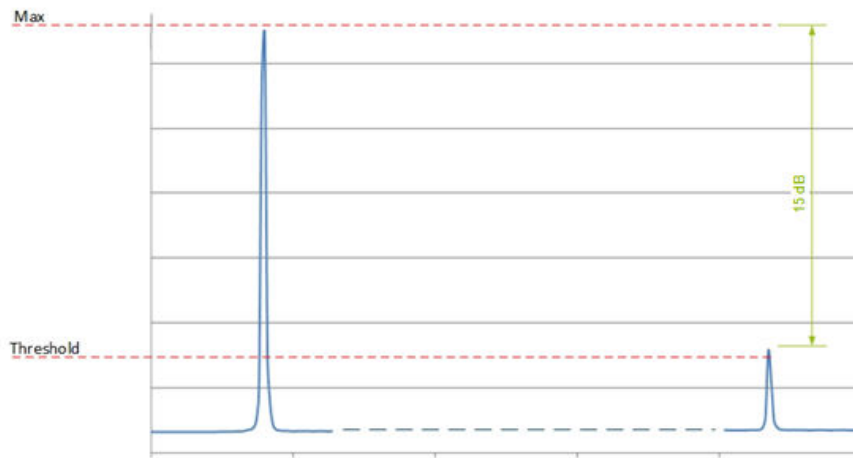


Figure 2: Power budget

Physical properties

| | |
|----------------------------|-----------------------------------------|
| Dimensions (without cable) | 300x200x84mm |
| Weight (without cable) | 4,27kg |
| Connector type | FC/APC |
| Power consumption | 6W (9-18V) (universal adapter included) |
| Interface | USB, ModBus RTU |

Packaging

Cardboard box with dimensions: 364x351x140mm (see Figure 3)

Optional - Ruggedized transportation case with dimensions: 555x428x211mm (see Figure 4)

Quality statement

All interrogators are 100% tested at SYLEX

Interrogator is manufactured according to ISO 9001:2008 and ISO 14001:2004

Accessories (included):

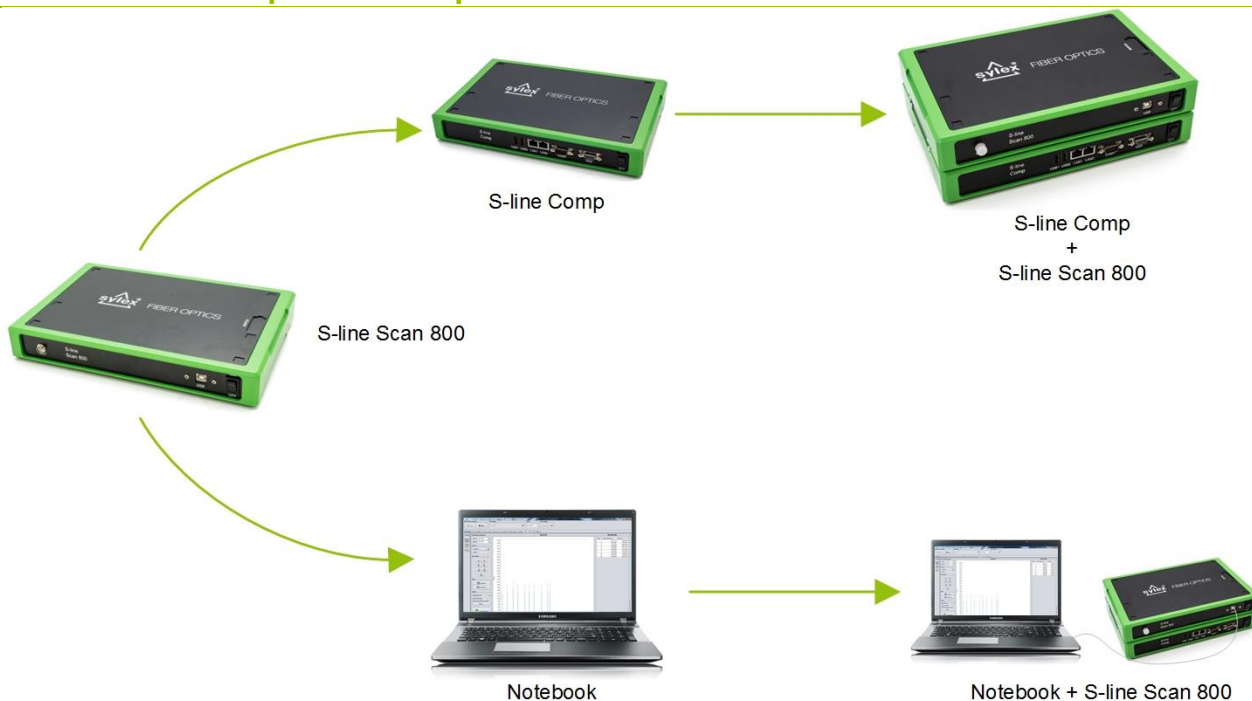
- ▲ Sentinel 2.0 – automated data acquisition and evaluation software
- ▲ Standard extension patchcord (SPA-02)
- ▲ Power adapter, 90-264V input range, 12V/2A output, with EU-UK-US compatible sockets

Recommended accessories within S-line family:

- ▲ S-line Switches – 1x4 (SWS-04), 1x36 (SWS-36)
- ▲ S-line Comp (SPC-02)
- ▲ S-line Splitters – 1x2 (SPL-02), 1x4 (SPL-04), 4x16 (SPL-16)
- ▲ S-line View 1.0 – web-based data management software for collection, analysis, validation and visualization of measured data
- ▲ Transportation case

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Communication options example



Packaging options



Figure 3: Cardboard box as standard packaging



Figure 4: Waterproof, crash proof and dust proof transportation case as optional packaging

* Specifications are subject to change without notice