

FBG Interrogator



Arcadia Optronix’s FBG Interrogator is designed with agile tunable laser, featured with fast tune, high accuracy and high stability. It is designed and manufactured with our state of art calibration software, hardware and firmware technologies, offering up to 2KHZ speed and 40 nm wavelength range. Our FBG Interrogator has been widely used in FBG system and gained good reputation in the sensor industry.

Key Features

- High Repeatability and Accuracy
- Robust and High Reliability
- All Channels Synchronous Scan
- Ethernet Interface

Applications

- Fiber Grating Sensor Interrogation Systems
- Optical Passive Components test system

Absolute Maximum Ratings

Parameters	Min.	Max.	Unit	Conditions
Input Voltage	4.75	5.25	V	
Operating Temperature	-15	+55	°C	
Storage temperature	-40	+85	°C	

Optical and Electrical Specifications

Parameters	Min.	Value Typical	Max.	Unit
Optical				
Wavelength Range	1528		1568	nm
Default Sweep Step		2		GHz
Scan Frequency ⁽¹⁾			2000	Hz
Channel	4		32	
Sensors/ Channel			30	
Repeatability	-2		+2	pm
Wavelength Stability ⁽³⁾	-5		+5	pm
Accuracy	-10		+10	pm
Electrical				
Power Supply	10		20	W
Input Voltage		5		V
Dynamic Range	25			dB
Communication Interface	RJ-45 Ethernet/UDP			
Gain Control ⁽²⁾	Automatic adjustments			

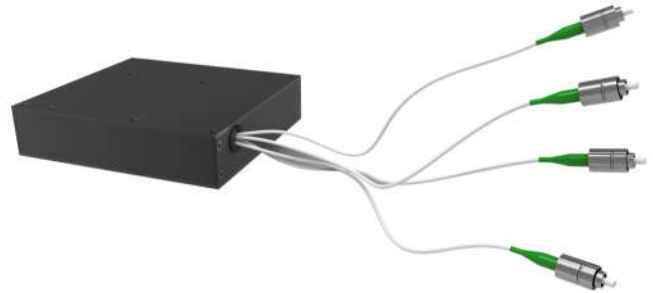
1. Sweep all channels at the same time
 2. 6 grades options, manual setting for each channel
 3. Tested Temperature: -15 to 55°C

Mechanical Structure

Scan Frequency	Channel	Dimensions (mm)	Fiber Output Type
≤ 100Hz	4	L*W*H=130*115*32	Flange or Fiber Pigtail
	8	L*W*H=235*205.6*72	Flange or Fiber Pigtail
	16		Flange or Fiber Pigtail
	24		Fiber Pigtail
	32		Fiber Pigtail
> 100Hz	4		L*W*H=130*115*32
	8	L*W*H=226*163*68.5	Flange
	16	L*W*H=170*150*65	Fiber Pigtail
	24		Fiber Pigtail
	32		Fiber Pigtail

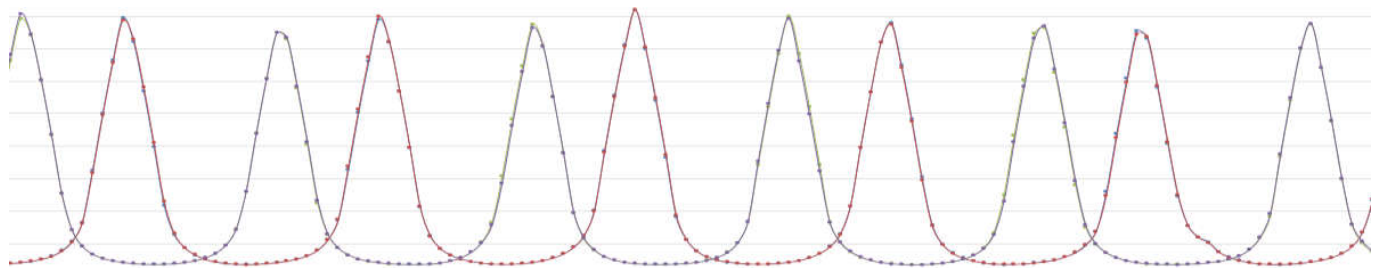


Flange



Fiber Pigtail

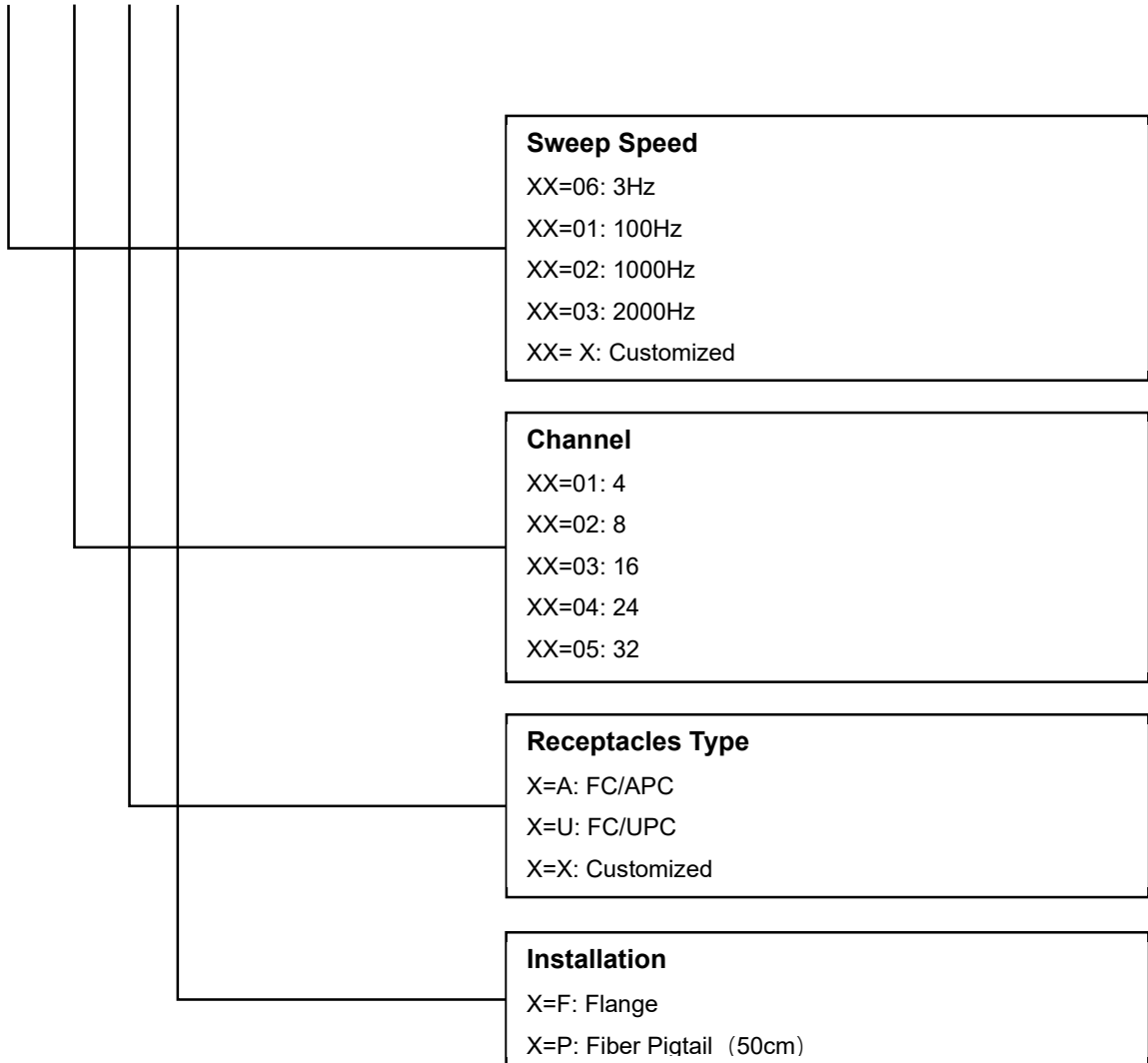
Performance Characteristics



50G Etalon Spectrum

Ordering Code Definitions

GC-97001C – XX – XX – X – X



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