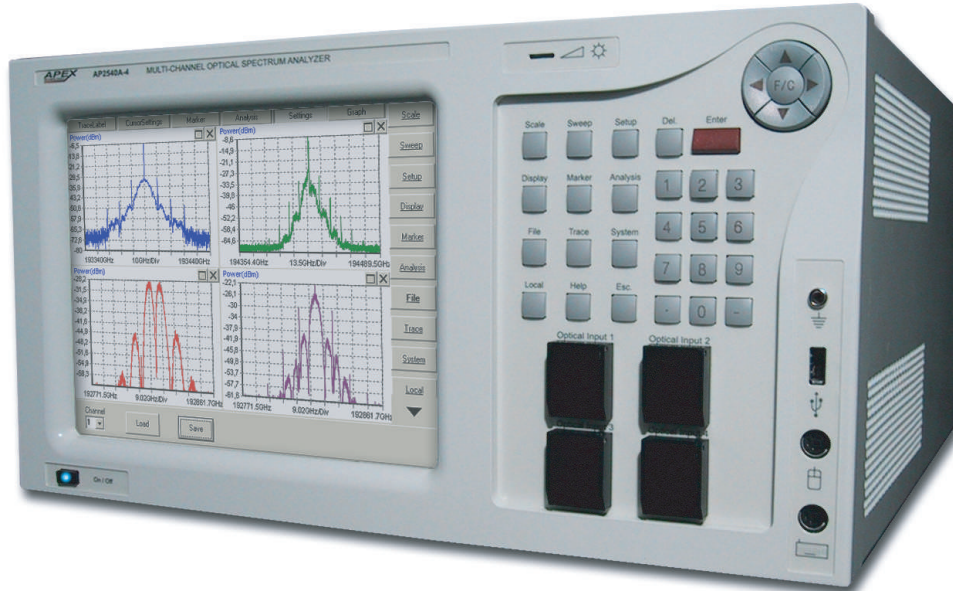


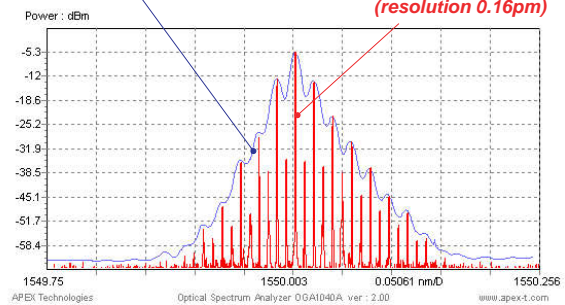
# AP2540A series Multi-channel Optical Spectrum Analyzer



The AP2540A series offer the most economical solution when more than one optical spectrum analyzer is required. Based on an interferometric principle, the AP2540A series achieve a 0.16pm resolution (20MHz) at an absolute wavelength accuracy of +/-3pm and has a close-in dynamic range of 60dB at 10pm. Standard configurations range from 2 up to 6 channels and additional channels are possible upon request.

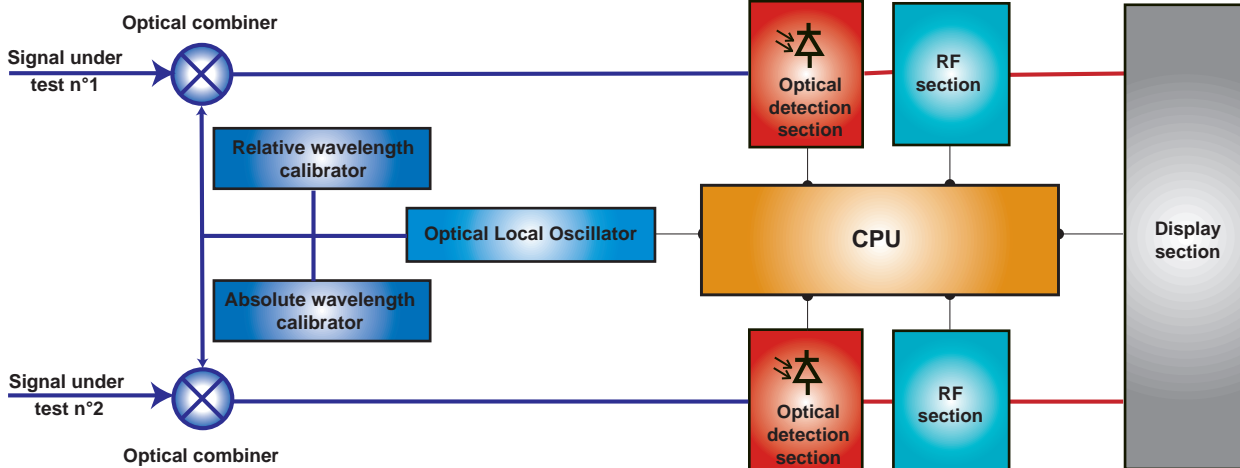
**Conventional grating based OSA**  
(resolution 10pm)

**Apex Technologies AP2540A OSA**  
(resolution 0.16pm)



## Principle

### Dual channel principle :



Specifications are subject to change without notice.

## Specifications

	AP2540A-x	AP2541A-x	AP2543A-x
Wavelength measurement range	1520nm to 1567nm	1520nm to 1567nm & 1557nm to 1607nm	1520nm to 1630nm
Wavelength span range	80pm <sup>f</sup> to 47nm	80pm <sup>f</sup> to 87nm	80pm <sup>f</sup> to 110nm
Measurement sampling interval <sup>g</sup>	0.5MHz (0.004pm) Max. (Span (80pm) / Number of measured and displayed points (20,000pts))		
Wavelength absolute accuracy <sup>a b c</sup>	+/-3pm		
Wavelength resolution (@3db) <sup>d</sup>	20MHz (0.16pm) and 100MHz (0.8pm)		
2 channel level range <sup>a e</sup>	-67dBm to +20dBm		-64dBm to +20dBm
4 channel level range <sup>a e</sup>	-64dBm to +20dBm		-61dBm to +20dBm
6 channel level range <sup>a e</sup>	-61dBm to +20dBm		-58dBm to +20dBm
Absolute level accuracy <sup>a b e</sup>	+/-0.3dB		
Level repeatability <sup>a b d e</sup>	+/-0.2dB		
Close-in dynamic range <sup>a b</sup>	>40dB @ +/-2pm 60dB @ +/-10pm		60dB @ +/-1.7pm
Spurious free dynamic <sup>d</sup>	>60dB		>45dB
Sweep time <sup>d e</sup>	5s for 55nm		8s for 110nm
Optical input	FC/PC, SMF-28 fiber		
Tunable laser output	>-5dBm		>-7dBm
Internal absolute WL calibrator	Yes		

Software features	Auto measurement, Zoom function, Zoom to scale, Auto calibration, Peak search, Line width, SMSR, Markers, Horizontal and vertical lines, Peak center, and more
Display	
X scale	Wavelength in nm or Frequency in THz
Y scale	Power in linear or logarithmic mode
Trace	Up to 6 traces
Screen	10.4inch, color TFT, 640x480pixels
Front keyboard	Yes
Touch sensitive screen	Yes
USB interface	1x on front panel, 2x on back panel
Internal memory	More than 1,000 traces
File format	Trace file (.dat, .txt), Setup file, Screen copy (.bmp), Marker table
Mouse and keyboard connections	Yes (PS2 type on front panel)
GPIB	IEEE-488
Ethernet	Yes (10/100 base T)
Operating temperature	+10°C to +35°C
Power requirements	AC 100 to 120V / 200 to 250V, 50/60Hz
Accessories	Touch sensitive pen

a) At 1550nm

b) At 0dBm

c) After wavelength calibration

d) Typical

e) Resolution 100MHz

f) Minimum span for 20,000pts. Zoom down this value is possible.

g) Resolution 20MHz

## Ordering information

**AP2540A-x** : C band (1520nm to 1567nm) Optical spectrum analyzer

Specify number of channels : 2, 4 or 6 (more upon request)

**AP2541A-x** : C band (1520nm to 1567nm) and L band (1557nm to 1607nm) Optical spectrum analyzer

Specify number of channels : 2, 4 or 6 (more upon request)

**AP2543A-x** : C+L band (1520nm to 1630nm) Optical spectrum analyzer

Specify number of channels : 2, 4 or 6 (more upon request)

Specifications are subject to change without notice.

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