Green is life tmg

ABN 43 064 478 842

231 osborne avenue clayton south, vic 3169
PO box 1548, clayton south, vic 3169
t 03 9265 7400 f 03 9558 0875
freecall 1800 680 680
www.tmgtestequipment.com.au

Test & Measurement

- sales
- rentals
- calibration
- repair
- disposal

Complimentary Reference Material

This PDF has been made available as a complimentary service for you to assist in evaluating this model for your testing requirements.

TMG offers a wide range of test equipment solutions, from renting short to long term, buying refurbished and purchasing new. Financing options, such as Financial Rental, and Leasing are also available on application.

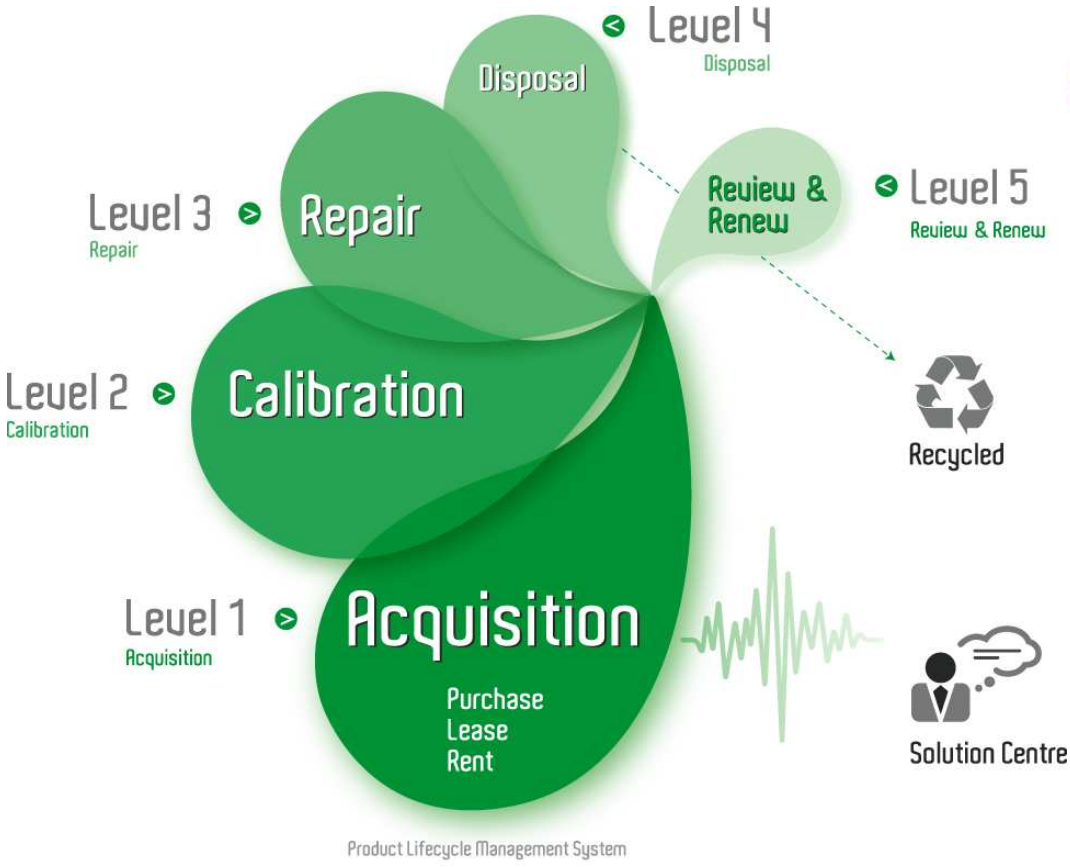
TMG will assist if you are unsure whether this model will suit your requirements.

Call TMG if you need to organise repair and/or calibrate your unit.

If you click on the "Click-to-Call" logo below, you can all us for FREE!

TMG Corporate Website **TMG Products Website**

Click-to-Call
TMG Now



Optical-to-Electrical Converters

▶ P6701B • P6703B

▶ *P6701B, P6703B.*

▶ Features & Benefits

Broad Wavelength Response 500 to 950 nm or 1100 to 1700 nm

High Bandwidth DC up to 1.2 GHz

High Gain 1 V/mW

Low Noise <11 pW/squareroot Hz

Probe Connects Directly to TDS7000/5000/3000/500/600/700 Series Scope (TEKPROBE™) or Other 50 Ω Instruments with 1103 TEKPROBE® Power Supply

SONET/SDH and Fibre Channel Reference Receiver Performance: TDS500C/700C (Opt. 3C or 4C) P6701B: Fibre Channel up to 1063 Mb/s, P6703B: SONET/SDH up to 622 Mb/s

▶ Applications

Eye-pattern Testing of Optical Communication Signals (SONET/SDH and Fibre Channel)

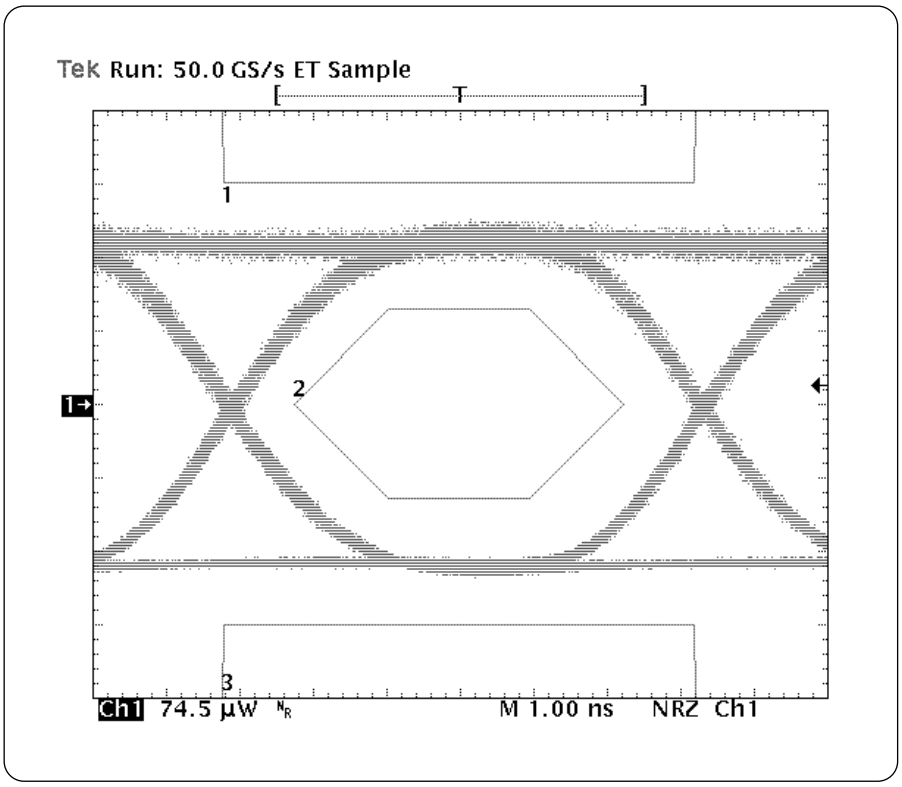
The Tektronix P6700 Series optical-to-electrical (O/E) converters change optical signals into electrical signals for convenient analysis on Tektronix TDS7000/5000/3000/500/600/700 Series oscilloscopes equipped with the TEKPROBE interface, or any other oscilloscope when used with the 1103 TEKPROBE power supply. The P6700 Series O/E converters are ideal for optical source characterization in the development, manufacture or service of optical communication systems and devices.

Small, conveniently packaged P6701B and P6703B optical-to-electrical analog converters provide an accurate interface for optical pulse shape measurements. The high gain, large dynamic range and stable output offset of these O/E converters make them ideal for performing eye-pattern analysis and extinction measurements.

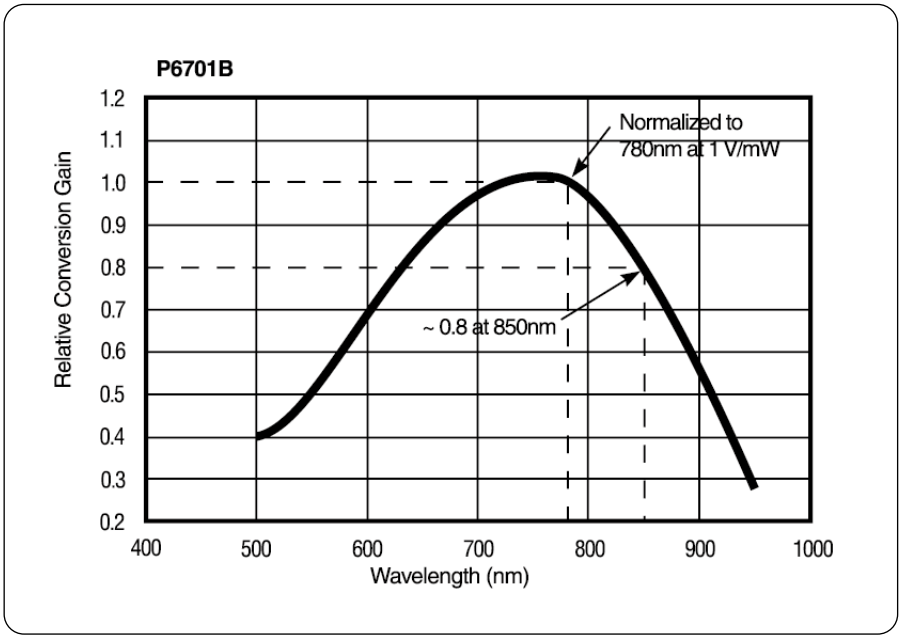
The P6701B/P6703B optical input is a one meter, 62.5µ multimode fiber with an FC/PC connector. Using the standard assortment of hybrid fiber optic mating sleeves, these O/Es can accommodate the various industry connector standards.

The TEKPROBE interface provides power, auto-scaling, auto-termination and correct units (microwatts) when used with Tektronix TDS500/600/700 Series oscilloscopes.

Tektronix
Enabling Innovation



▶ *OC-3/STM-1 SONET/SDH transmitter eye pattern test.*



▶ *P6701B: Typical wavelength dependent gain (at 25 °C).*

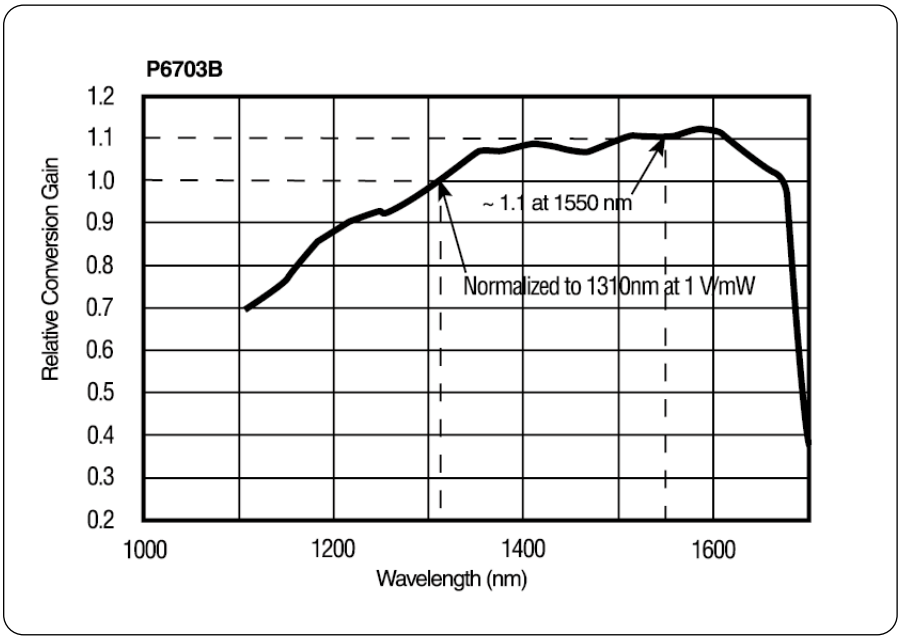
SONET/SDH and Fibre Channel Reference Receiver Performance

The P6701B and P6703B can be transformed into ITU G.957 or ANSI FC-PH reference receivers when they are either ordered as an option (3C - P6701B, 4C - P6703B) to the latest Tektronix TDS500C/700 Series digitizing oscilloscopes or as a stand-alone hardware solution (nominal).

The TDS Option 3C provides a calibrated P6701B reference receiver for Fibre Channel dates rates from 133 Mb/s up to 1063 Mb/s. Option 4C provides a calibrated P6703B reference receiver for SONET/SDH date rates from 52 Mb/s up to 622 Mb/s. The optical-to-electrical converters are matched and calibrated to a specific scope channel which ensures complete system compliance with the fourth-order Bessel-Thompson frequency response.

The P6703B, when used in conjunction with the FS52, FS156 or FS622 SONET/SDH hardware filters, provide customers with a nominal reference receiver performance for 51.84 Mb/s, 155.52 Mb/s, and 622 Mb/s.

The standard P6701B has a nominal frequency response which follows the fourth-order Bessel-Thompson for Fibre Channel 1063 Mb/s. The 1103 TEKPROBE power supply can be used to connect these products to the 11800 Series or CSA803 Series sampling oscilloscopes.



▶ *P6703B: Typical wavelength dependent gain (at 25 °C).*

▶ Characteristics

	P6701B	P6703B
Wavelength Response	500 to 950 nm	1100 to 1650 nm
Bandwidth*[1] (Typical)	DC to 1.0 GHz	DC to 1.2 GHz
Rise Time (Typical)	≤500 ps	≤395 ps
Conversion Gain	1 V/mW	1 V/mW
Max. Input Optical Power	1 mW (0 dBm)*[2]	1 mW (0 dBm)*[2]
	10 mW (10 dBm)*[3]	10 mW (10 dBm)*[3]
	20 mW (13 dBm)*[4]	20 mW (13 dBm)*[4]
Max. Output Modulation Depth for Reference Receiver Performance	≤200 mV_{p-p}	≤200 mV_{p-p}
Noise Equivalent Power	≤0.87 µW (RMS)*[5]	≤0.59 µW (RMS)*[5]
	≤28 pW per squareroot Hz	≤19 pW per squareroot Hz
Max. Input Fiber Core Diameter	62.5 µm	62.5 µm

*[1] Optical Bandwidth (-6 dB electrical).

*[2] Maximum average operating power.

*[3] Max average nondestruct.

*[4] Max peak nondestruct.

*[5] 1 GHz low pass filter in series with output.

▶ Ordering Information

P6701B

Optical-to-electrical Converter with FC/PC Connector.

Includes: Hard Case, User Manual (English, French, German, and Japanese), Assorted Fiber Optic Hybrid Connectors (FC/FC, FC/ST and FC/SC), Certificate of Traceable Calibration. Please specify power plug when ordering.

P6703B

Optical-to-electrical Converter with FC/PC Connector.

Includes: Hard Case, User Manual (English, French, German, and Japanese), Assorted Fiber Optic Hybrid Connectors (FC/FC, FC/ST and FC/SC), Certificate of Traceable Calibration. Please specify power plug when ordering.

Service

Opt. C3 – Calibration Service 3 Years.

Opt. C5 – Calibration Service 5 Years.

Opt. D1 – Calibration Data Report.

Opt. D3 – Calibration Data Report 3 Years (with Option C3).

Opt. D5 – Calibration Data Report 5 Years (with Option C5).

Opt. R3 – Repair Service 3 Years.

Opt. R5 – Repair Service 5 Years.

Power Plug Options

Opt. A0 – US Plug, 115 V, 60 Hz.

Opt. A1 – Euro Plug, 220 V, 50 Hz.

Opt. A2 – UK Plug, 240 V, 50 Hz.

Opt. A3 – Australian Plug, 240 V, 50 Hz.

Opt. A5 – Swiss Plug, 220 V, 50 Hz.

Accessories

Single-mode Fiber Optic Cables – (9 µm)

FC/PC to FC/PC. Order 174-1387-00.

FC/PC to ST. Order 174-1386-00.

FC/PC to SC/PC. Order 174-3921-00.

FC/PC to Diamond (2.5). Order 174-1497-00.

FC/PC to Diamond (3.5). Order 174-1385-00.

Multimode Fiber Optic Cables – (62.5 µm)

FC/PC to FC/PC. Order 174-2322-00.

FC/PC to SC/PC. Order 174-4093-00.

FC/PC to SMA. Order 174-2324-00.

90/10, 3 Port Single-mode Optical Splitter FC/PC Connectors – Order 174-3737-00.

10 dB, In-line Single-mode Optical Attenuator FC/PC Connectors – Order 119-5118-00.

DIN/FC Fiber Optic Hybrid Connector – Order 020-2209-00.

Contact Tektronix:

ASEAN / Australasia / Pakistan (65) 6356 3900
Austria +43 2236 8092 262
Belgium +32 (2) 715 89 70
Brazil & South America 55 (11) 3741-8360
Canada 1 (800) 661-5625
Central Europe & Greece +43 2236 8092 301
Denmark +45 44 850 700
Finland +358 (9) 4783 400
France & North Africa +33 (0) 1 69 86 80 34
Germany +49 (221) 94 77 400
Hong Kong (852) 2585-6688
India (91) 80-2275577
Italy +39 (02) 25086 1
Japan 81 (3) 3448-3010
Mexico, Central America & Caribbean 52 (55) 56666-333
The Netherlands +31 (0) 23 569 5555
Norway +47 22 07 07 00
People's Republic of China 86 (10) 6235 1230
Poland +48 (0) 22 521 53 40
Republic of Korea 82 (2) 528-5299
Russia, CIS & The Baltics +358 (9) 4783 400
South Africa +27 11 254 8360
Spain +34 (91) 372 6055
Sweden +46 8 477 6503/4
Taiwan 886 (2) 2722-9622
United Kingdom & Eire +44 (0) 1344 392400
USA 1 (800) 426-2200
USA (Export Sales) 1 (503) 627-1916
For other areas contact Tektronix, Inc. at: 1 (503) 627-7111

Updated 20 September 2002

Our most up-to-date product information is available at:
www.tektronix.com

Product(s) are manufactured in ISO registered facilities.

08/03 HB/WWW 60W-11304-1

Tektronix
Enabling Innovation