

FIXTURE ACCESSORIES

Mass Interconnect Products
Opens Testing Products
LEDHECK Parts
Board Marker Probes
Personality Pins
Indicator Probes
Test Connectors



EVERETT CHARLES
TECHNOLOGIES

A DOVER COMPANY



TABLE OF CONTENTS

Mass Interconnect Products / TTI-Testron VG Series

VGR4 / VGR12 / VGR12-RM1 / VGR24 / VGR24-RM1	VG Receiver	7
VGRCB-4C / VGFCB-4C	Coax VG Blocks	8
VGRCB-9C / VGFCB-9C	Coax VG Blocks	8
VGRCB-13C / VGFCB-13C	Coax VG Blocks	8
VGRCB-13CPF / VGFCB-13CPF	Combi Coax / Power Blocks	9
VGRCB-15CPF / VGFCB-15CPF	Combi Coax / Power Blocks	9
VGRCB-22CPF / VGFCB-22CPF	Combi Coax / Power Blocks	9
VGRCB-24CPF / VGFCB-24CPF	Combi Coax / Power Blocks	10
VGRCB-30CPF / VGFCB-30CPF	Combi Coax / Power Blocks	10
VGRCB-32CPF / VGFCB-32CPF	Combi Coax / Power Blocks	10
VGRCB-39CPS / VGFCB-39CPS	Coax / Power / Signal / Pneumatic Blocks	11
VGRCB-32P / VGFCB-32P	Power Blocks	11
VGRCB-13PNEU / VGFCB-13PNEU	Pneumatic Blocks	11
VGRCB-136 / VGFCB-136	Signal VG Blocks	12
VGRCB-170 / VGFCB-170	Signal VG Blocks	12
VGRCB-VPM / VGFCB-VPM / Tools	Vacuum Port Modules / Tools	13

Opens Testing Products

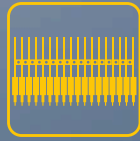
Agilent TestJet Parts	TestJet & VTEP Parts for Agilent 3070 fixtures . . .	17
GenRad OpensXpress Parts	OpensXpress Parts for GenRad fixtures	21
Teradyne: FrameScan Plus & FrameScan FX 2.0 Parts	22

Special Products

Analog Color Analyser	Analog LEDCHECK VIII.	26
Analog Color Analyser	Analog LEDCHECK VIII Accessories	27
Digital Color Analyser	Digital LEDCHECK III & V	28
Digital Color Analyser	Digital LEDCHECK Accessories	29
Board Marker Probe	30
Personality Pins for Agilent Fixtures / Indicator Probe	31
HDMI Connector	Floating Test Connectors	32
Mini Western Connectors	Floating Test Connectors	33
USB Connectors	Floating Test Connectors	34







MASS INTERCONNECT PRODUCTS

MASS INTERCONNECT PRODUCTS

The VG Series products are designed for Mass Interconnect terminations of Rack & Stack test systems.

There are several VG receiver available which will accept any fixtures with a Pylon Interface. Such fixtures are also available from ECT in different sizes.

Although someone might say with a smile that “VG” stands for “Very Good”, whereas the right abbreviation VG is:

- ❖ “V”: VXI (Vme Xtensions for Instrumentation) and
- ❖ “G”: GPIB (General Purpose Instrument Bus/ HPIB / IEEE-488).

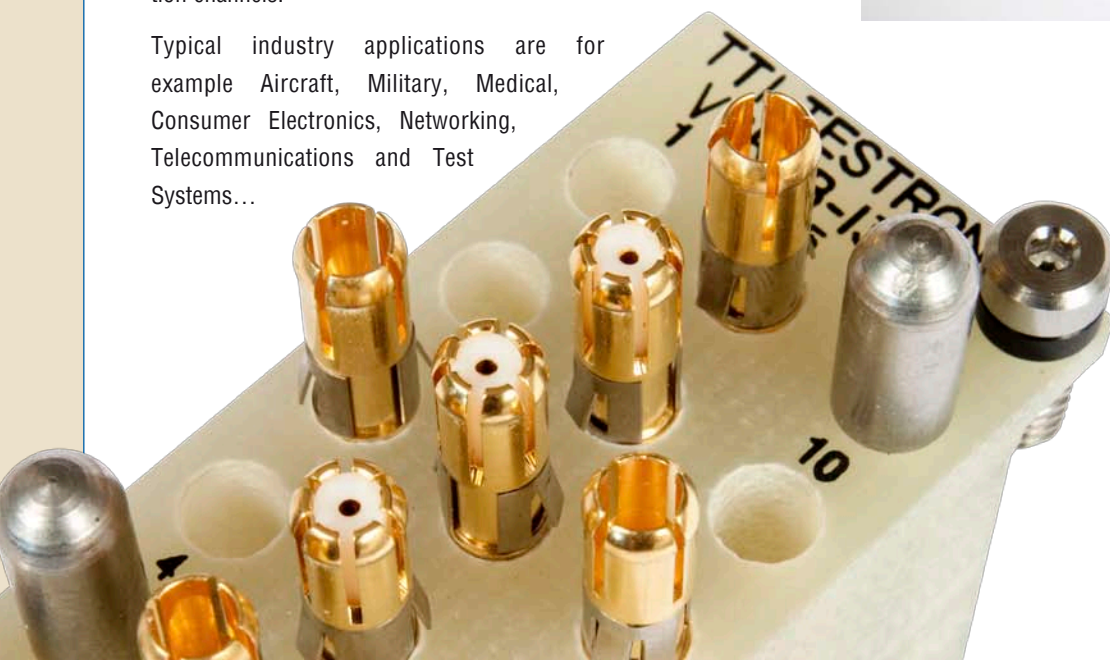
There are a number of different block types:

- ❖ “Coax: up to 18 GHz
- ❖ “Power: up to 50 Amps per pin
- ❖ “Coax & Power combined
- ❖ “Signal: up to 170 pins, @250VAC/5 Amps
- ❖ “Pneumatic: up to 13 fittings
- ❖ “Vacuum: port modules

Other blocks or cable assemblies are available upon request; please contact your closest ECT location.

These products were developed and produced by TTI-Testron, which was acquired by ECT in 1999. Since then ECT continued to provide the VG Series Mass Interconnect product through their worldwide distribution channels.

Typical industry applications are for example Aircraft, Military, Medical, Consumer Electronics, Networking, Telecommunications and Test Systems...



Mini 4 Block Desktop Receiver



Model Number: VGR4
 P/No: 122
 To be used for small bench-top test requirements with max. 4 receiver blocks.
 No vacuum port module to be used.
 For the fixture side a metal Adapter Box VGF4-0808-AB (P/No 123), size 8x8" (203 x 203mm) is available.

12 Block Desktop Receiver



Model Number: VGR12
 P/No: 21
 To be used for all fixtures with a Pylon interface (GenRad, ITA, R&S).
 Up to 10 VG receiver blocks and max. 2 vacuum port modules can be installed.
 Vacuum port module to be ordered separately VGRCB-VPM (P/No 576).

12 Block Rack Mount Receiver



Model Number: VGR12-RM1
 P/No: 140
 Same as above VGR12 but for mounting in a 19" Rack

24 Block Double-Row Desktop Receiver

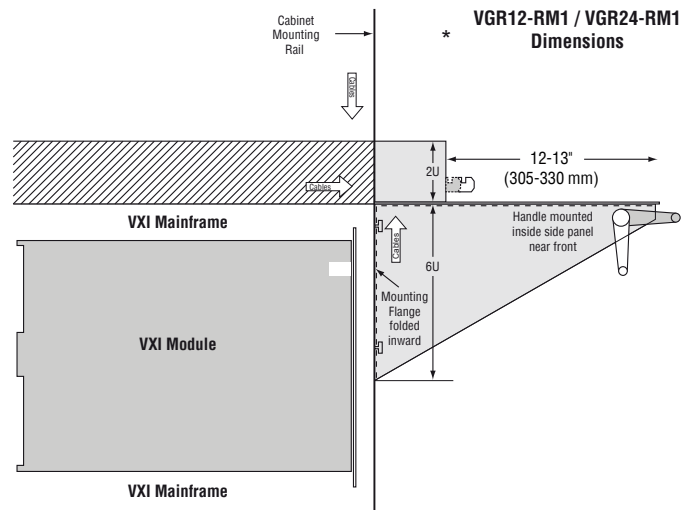


Model Number: VGR24
 P/No: 207
 The VGR24 will accommodate up to 22 receiver blocks and a max. of 2 vacuum port modules in the bottom or top row.

24 Block Double-Row Rack Mount Receiver



Model Number: VGR24-RM1
 P/No: 206
 Same as above VGR24 but for mounting in a 19" Rack.



Dimensions of the Rack Mount Receivers VGR12-RM1 and VGR24-RM1

RECEIVER SIDE

4-Position up to 18 GHz Block



Model Number VGRCB-4C
 P/No 611
 Impedance 50 Ω

It includes
 2 installed alignment pins
 2 installed floating mounting screws
 4 holes (without contacts)

The coax contacts must be ordered separately under P/No A32433
 (50 Ω blind mate plug contact for a SMA connector)

FIXTURE SIDE

4-Position up to 18 GHz Block



Model Number VGFCB-4C
 P/No 610
 Impedance 50 Ω

It includes
 2 installed bushings
 2 screws 4-40
 4 holes (without contacts)

The coax contacts must be ordered separately under P/No A32434
 (50 Ω blind mate jack contact for a SMA connector)

9-Position up to 18 GHz Block



Model Number VGRCB-9C
 P/No 1121
 Impedance 50 Ω

It includes
 2 installed alignment pins
 2 installed floating mounting screws
 9 holes (without contacts)

The coax 50 Ω blind mate plug contacts must be ordered separately

- for crimp connection: A31897
- for SMA connection: A35764

9-Position up to 18 GHz Block



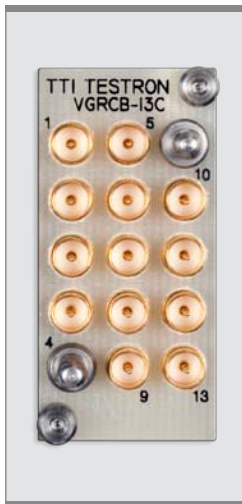
Model Number VGFCB-9C
 P/No 1122
 Impedance 50 Ω

It includes
 2 installed bushings
 2 screws 4-40
 9 holes (without contacts)

The coax 50 Ω blind mate jack contacts must be ordered separately

- for crimp connection: A31898
- for SMA connection: A32434

13-Position up to 3.7 GHz Block



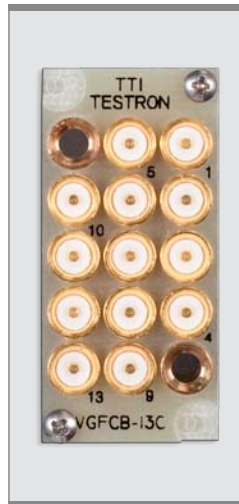
Model Number VGRCB-13C
 P/No 482
 Impedance 50 Ω

It includes
 2 installed alignment pins
 2 installed floating mounting screws
 13 installed coax contacts

(The center conductor and the outer shell are spring loaded)

- Replacement Coax Receiver probe: P/No 480
- Replacement center probe: A35860

13-Position up to 3.7 GHz Block



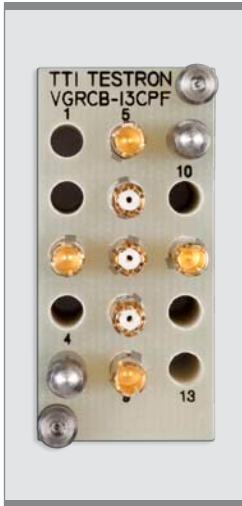
Model Number VGFCB-13C
 P/No 483
 Impedance 50 Ω

It includes
 2 installed bushings
 2 screws 4-40
 13 installed coax contacts

- Replacement Coax Fixture probe P/No 481

RECEIVER SIDE

13-Position 50 Ω Coax/Power Block



Model Number VGRCB-13CPF
 P/No 580
 Coax contact up to 500 MHz
 Power contact up to 30 Amps

It includes

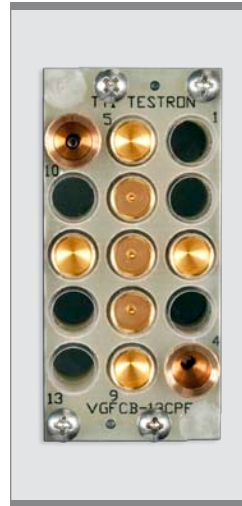
- 2 installed alignment pins
- 2 installed floating mounting screws
- 13 holes (without contacts)

Contacts must be ordered separately

- Coax contact with 36" coax cable CR-CA50RG174-36 P/No 637
- Power contact - CR-610116102

FIXTURE SIDE

13-Position 50 Ω Coax/Power Block



Model Number VGFCB-13CPF
 P/No 579
 Coax contact up to 500 MHz
 Power contact up to 30 Amps

It includes

- 2 installed bushings
- 2 screws 4-40
- 13 holes (without contacts)

Contacts must be ordered separately

- Coax contact with 36" coax cable CF-CA50RG174-36 P/No 623
- Power contact - CF-610115102 for 10 AWG - CF-610115103 for 12 AWG

15-Position 50 Ω Coax/Power Block



Model Number VGRCB-15CPF
 P/No 910
 Coax contact up to 500 MHz
 Power contact up to 30 Amps

It includes

- 2 installed alignment pins
- 2 installed floating mounting screws
- 15 holes (without contacts)

Contacts must be ordered separately

- Coax contact with 36" coax cable CR-CA50RG174-36 P/No 637
- Power contact - CR-610116102

15-Position 50 Ω Coax/Power Block



Model Number VGFCB-15CPF
 P/No 911
 Coax contact up to 500 MHz
 Power contact up to 30 Amps

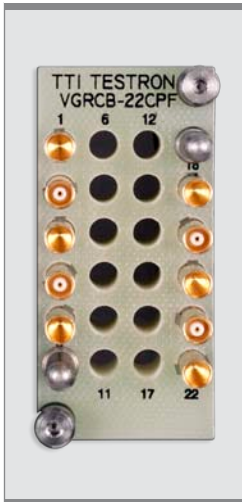
It includes

- 2 tooling holes
- 2 screws 4-40
- 15 holes (without contacts)

Contacts must be ordered separately

- Coax contact with 36" coax cable CF-CA50RG174-36 P/No 623
- Power contact - CF-610115102 for 10 AWG - CF-610115103 for 12 AWG

22-Position 50 Ω Coax/Power Block



Model Number VGRCB-22CPF
 P/No 527
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

- 2 installed alignment pins
- 2 installed floating mounting screws
- 22 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610104114 or
- Coax contact with 36" coax cable CR-CA50RG174-36: P/No 643
- Mini power contact CR-610116112

22-Position 50 Ω Coax/Power Block



Model Number VGFCB-22CPF
 P/No 528
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

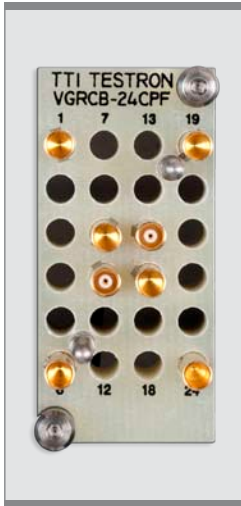
- 2 installed bushings
- 2 screws 4-40
- 22 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610103115 or
- Coax contact with 36" coax cable CF-CA50RG174-36: P/No 632
- Mini power contact CF-0883011-02

RECEIVER SIDE

24-Position 50 Ω Coax/Power Block



Model Number VGRCB-24CPF
 P/No 908
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

- 2 installed alignment pins
- 2 installed floating mounting screws
- 24 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610104114 or
- Coax contact with 36" coax cable CR-CA50RG174-36: P/No 643
- Mini power contact CR-610116112

FIXTURE SIDE

24-Position 50 Ω Coax/Power Block



Model Number VGFCB-24CPF
 P/No 909
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

- 2 installed bushings
- 2 screws 4-40
- 24 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610103115 or
- Coax contact with 36" coax cable CF-CA50RG174-36: P/No 632
- Mini power contact CF-0883011-02

30-Position 50 Ω Coax/Power Block



Model Number VGRCB-30CPF
 P/No 525
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

- 2 installed alignment pins
- 2 installed floating mounting screws
- 30 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610104114 or
- Coax contact with 36" coax cable CR-CA50RG174-36: P/No 643
- Mini power contact CR-610116112

30-Position 50 Ω Coax/Power Block



Model Number VGFCB-30CPF
 P/No 526
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

- 2 installed bushings
- 2 screws 4-40
- 30 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610103115 or
- Coax contact with 36" coax cable CF-CA50RG174-36: P/No 632
- Mini power contact CF-0883011-02

32-Position 50 Ω Coax/Power Block



Model Number VGRCB-32CPF
 P/No 906
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

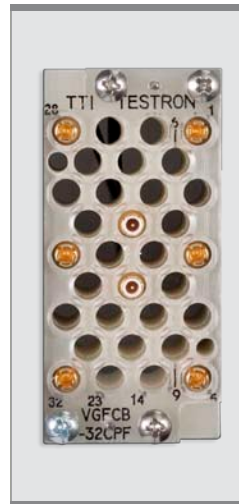
It includes

- 2 installed alignment pins
- 2 installed floating mounting screws
- 32 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610104114 or
- Coax contact with 36" coax cable CR-CA50RG174-36: P/No 643
- Mini power contact CR-610116112

32-Position 50 Ω Coax/Power Block



Model Number VGFCB-32CPF
 P/No 907
 Coax contact up to 1 GHz
 Power contact up to 50 Amps/250 VAC

It includes

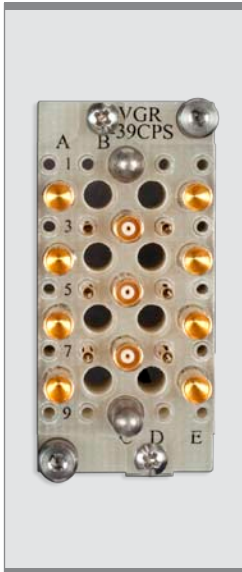
- 2 installed bushings
- 2 screws 4-40
- 32 holes (without contacts)

Contacts must be ordered separately

- Mini coax contact 610103115 or
- Coax contact with 36" coax cable CF-CA50RG174-36: P/No 632
- Mini power contact CF-0883011-02

RECEIVER SIDE

39-Position 50 Ω Coax/Power/Signal Block



Model Number VGRCB-39CPS
 P/No 904
 Coax contact up to 1 GHz
 Power contact up to 50Amps/250VAC
 Signal contact up to 10 Amps

It includes: 2 installed alignment pins
 2 installed floating mounting screws
 39 holes (without contacts): of which 19 are for coax/power contact and 20 for signal contact

Contacts must be ordered separately

- Mini coax contact 610104114 or
- Coax contact with 36" coax cable CR-CA50RG174-36: P/No 643
- Mini power contact CR-610116112
- Signal contact 610110101

FIXTURE SIDE

39-Position 50 Ω Coax/Power/Signal Block



Model Number VGFCB-39CPS
 P/No 905
 Coax contact up to 1 GHz
 Power contact up to 50Amps/250VAC
 Signal contact up to 10 Amps

It includes: 2 installed bushings
 2 screws 4-40
 39 holes (without contacts): of which 19 are for coax/power contact and 20 for signal contact

Contacts must be ordered separately

- Mini coax contact 610103115 or
- Coax contact with 36" coax cable CF-CA50RG174-36: P/No 632
- Mini power contact CF-0883011-02
- Signal contact 610110108

32-Position Power Block

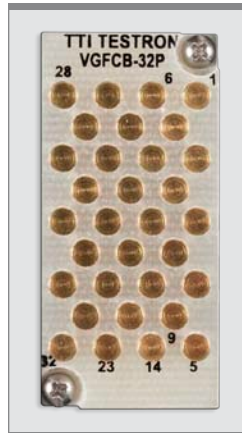


Model Number VGRCB-32P
 P/No 687
 Current rating 25 Amps

It includes
 32 installed gold-plated receptacles with aligned solder cups, flush mounted
 2 screws 4-40

The high current probes with a spear tip must be ordered separately
 P/No VGR32P-HCP or HCP-14B

32-Position Power Block



Model Number VGFCB-32P
 P/No 686
 Current rating 25 Amps

It includes
 32 installed gold plated solder pot contacts with flat heads .177" (4,5mm) Ø
 2 screws 4-40
 Replacement contact: A10206

13-Position Pneumatic Lines Block



Model Number VGRCB-13PNEU
 P/No 902

It includes
 13 installed pneumatic fittings with a through-hole of .125" (3,2mm) Ø and at the far-side a .157" (4,0mm) Ø barbe for 4 mm hose connections
 2 installed guide pins
 2 installed floating mounting screws

Replacement parts are
 • receiver air fitting contact A32431
 • O-Ring A34432

13-Position Pneumatic Lines Block



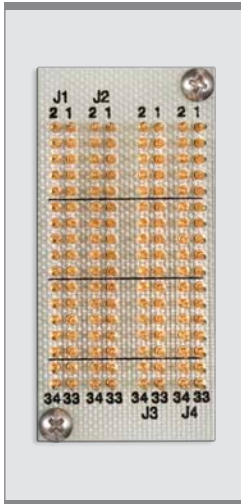
Model Number VGFCB-13PNEU
 P/No 903

It includes
 13 installed pneumatic fittings with a through-hole of .125" (3,2mm) Ø and at the far-side a .157" (4,0mm) Ø barbe for 4 mm hose connections
 2 installed bushings
 2 installed mounting screws 4-40

Replacement parts are
 • fixture air fitting contact A32432

RECEIVER SIDE

136-Position Signal Block



For use with ribbon cables plugging directly onto the back of the blocks.

Model Numbers

VGRCB-136 P/No 820479
with square 25mil wire wrap receptacles

VGRCB-136F P/No 820415
same as above but floating block

VGRCB-136R P/No 912
with 25mil Ø round pin receptacles

VGRCB-136F-R P/No 820424
Floating block with round pin receptacles

It includes

136 installed receptacles (the square

pins are not aligned)

136 installed spring loaded probes with .160" (4,1mm) full travel

2 alignment pins in the floating blocks

2 screws 4-40 or 2 floating mounting screws

Replacement parts are

Probes: EPA-2B40

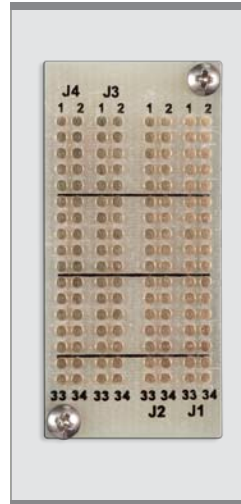
Receptacles: SPR-2W-2 with square WW-pin

SDN160R with round pin or

SPR-2W-3 gold plated with round pins

FIXTURE SIDE

136-Position Signal Block



For use with ribbon cables plugging directly onto the back of the blocks.

Model Numbers

VGFCB-136 P/No 900
with square 25mil wire wrap pins

VGFCB-136F P/No 820417
same as above but for floating block

VGFCB-136R P/No 820494
with 25mil Ø round pins

It includes

136 gold plated contacts with flat heads (the square pins are not aligned)

2 installed bushings in the floating block

2 screws 4-40

Replacement parts are

Contacts with square pin SIP-90-2

Contacts with round pin A12962

170-Position Signal Block



Model Numbers

VGRCB-170 P/No B10783-1L
with square 25mil wire wrap receptacles

VGRCB-170F P/No 820411
same as above but floating block

VGRCB-170R P/No B10783-R
with 25mil Ø round pin receptacles

VGRCB-170F-R P/No 820423
Floating block with round pin receptacles

It includes

170 installed receptacles (the square pins are aligned)

170 installed spring loaded probes with .160" (4,1mm) full travel

2 alignment pins in the floating blocks

2 screws 4-40 or 2 floating mounting screws

Replacement parts are

Probes: EPA-2B40, Receptacles: SPR-2W-2 with square WW-pin

SDN160R with round pin or

SPR-2W-3 gold plated with round pins

170-Position Signal Block



Model Numbers

VGFCB-170 P/No B10031-VLD
with square 25mil wire wrap pins

VGFCB-170F P/No 820413
same as above but for floating block

VGFCB-170R P/No 660
with 25mil Ø round pins

VGFCB-170F-R P/No 820422
same as above but for floating block

It includes

170 gold plated contacts with flat heads (the square pins are aligned)

2 installed bushings in the floating blocks

2 screws 4-40

Replacement parts are

Contacts with square pin SIP-90-2

Contacts with round pin A12962

RECEIVER SIDE

Receiver Vacuum Port Module



Model Number VGRCB-VPM
 P/No 576

It includes
 Vacuum port
 4 screws 6-32
 1 brass pipe plug with tapered thread for 1/2" threaded hole

FIXTURE SIDE

Fixture Vacuum Port Module



Model Number VGFCB-VPM
 P/No B10056-1

It includes
 Vacuum port

Insertion tools

Installation tool for fixture contacts in VGFCB-9C: P/No A32492
 Combo insertion tool for floating blocks: P/No B32503

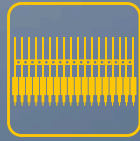
Extraction tools

Receiver Coax/Power extraction tool VGRXT: P/No 412601
 Fixture Coax/Power extraction tool VGFXT: P/No 412602
 Receiver/Fixture Mini Coax/Power extraction tool VGMXT: P/No 412615

Torque Wrench

SMA connector torque wrench for VGR/FCB-9C: P/N A31887





OPENS TESTING PRODUCTS

OPENS TESTING PRODUCTS

Since some time already, US companies originally had developed vectorless test techniques for detecting open pins on component packages and connectors:

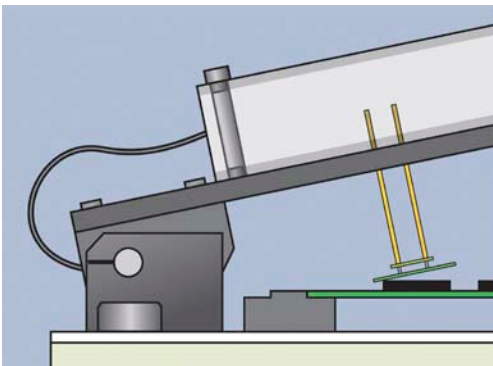
- HP/Agilent with TestJet and VTEP parts
- GenRad with OpensXpress parts (now part of Teradyne Inc.)
- Teradyne with FrameScan Plus and FrameScan FX2.0 parts.

ECT itself developed the Hanger probes:

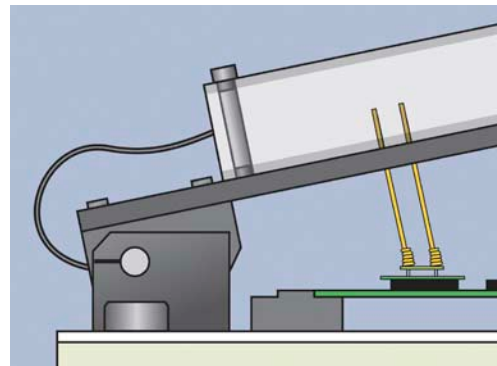


Hanger Probe

Hanger Probes – The compliant motion of the ECT hanger style probes is perfect for use with non level or non parallel applications. By lessening the side forces, there is less opportunity for damage to the sensors under test.

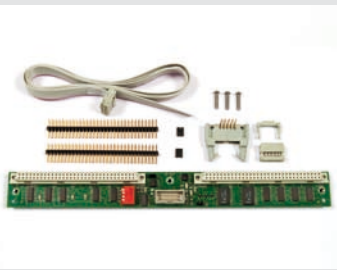


Old style during gate closure. Note stress interference due to non-compliance in the sensor probe combination.



ECT spring loaded hanger style offers compliance during gate closure and operation.

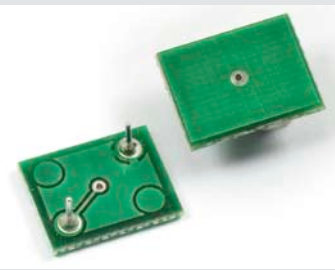
TestJet MUX Card pkg



for up to 64 sensors
 P/No: 804352
 Agilent P/No E3849A

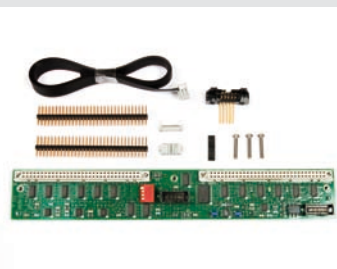
- It includes**
- 1 MUX card
 - connectors
 - ribbon cable

Sensor Plate .475" x .375" x .050" thick



12,0 x 9,5 x 1,3 mm thick
 Size S014, S016
 P/No: 806437
 Agilent P/No: E3851A
 packing unit: 10 pieces

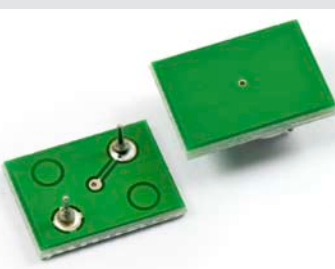
TESTJET MUX + Ref Card pkg



for up to 64 sensors &
ConnectCheck
 P/NO: 806924
 Agilent P/No E3969A
 Signal Conditioner +
 Reference Board

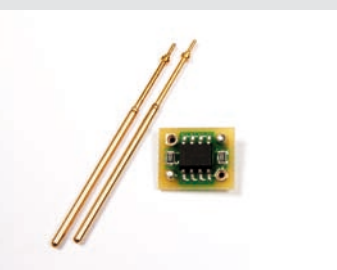
- It includes**
- 1 MUX + Ref card
 - connectors
 - ribbon cable

Sensor Plate .575" x .425" x .050" thick



14,6 x 10,8 x 1,3 mm thick
 Size S020
 P/No: 806438
 Agilent P/No: E3852A
 packing unit: 10 pieces

TestJet Probe pkg



for mounting in bottom side
probe field
 P/No: 804353
 Agilent P/Nos: E3850A /
 E3960A

- It includes**
- 1 amplifier board
 - 2 probes LTP-25TJ-4
 (Agilent E3963A)

Sensor Plate 1.25" x 1.25" x .050" thick



31,8 x 31,8 x 1,3 mm thick
 P/No: 806435
 Agilent P/No: E3853A
 packing unit: 10 pieces

ECT Hanger TestJet pkg



for mounting in bottom and
top side probe field
 P/No: 804855 alternative for
 Agilent P/No E3850A/E3960A

- It includes**
- 1 amplifier board with 2
 tapped pins SAP-25W-3
 pressed-in
 - 2 hanger probes with
 spiral spring head HTJ-25A

Sensor Plate 2.56" x 2.56" x .050" thick



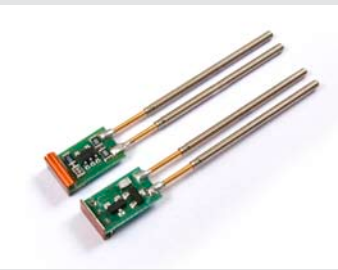
65 x 65 x 1,3 mm thick
 P/No: 806436
 Agilent P/No: E3854A
 packing unit: 1 piece

Sensor Plate .500" x 6.25" x .050" thick



12,7 x 159 x 1,3 mm thick
 P/No: 806439
 Agilent P/No: E3964A
 Packing unit: 1 piece

Assembled Vertical Polarity Check part



P/No of ECT Munich:
 SP-0074
 P/No of Dover/Hungary:
 805283A-BC

It includes

- 2 spring probes 805284
 - 1 sensor plate B-C 805285
 - soldered to amplifier board 805283
- packing unit: 1 piece

Polarity Check vertical Amplifier pkg

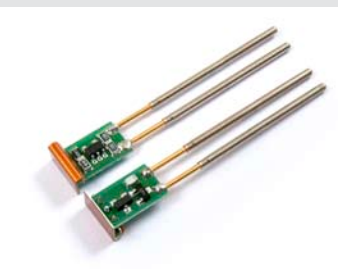


P/No: 805283
 Agilent P/Nos: E3845A / E3847A

It includes

- 1 amplifier board
 - 2 probes 805284
 - 2 receptacles 805287
- packing unit: 1 package

Assembled Vertical Polarity Check part



P/No of ECT Munich:
 SP-0075
 P/No of Dover/Hungary:
 805283A-D

It includes

- 2 spring probes 805284
 - 1 sensor plate D 805286
 - soldered to amplifier board 805283
- packing unit: 1 piece

Sensor Plate for Polarity Check



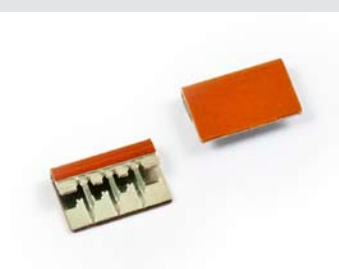
for SMT capacitors size B-C
 Size .248" x .147"
 (6,3 x 3,7 mm)
 P/No: 805285
 Agilent P/No: E3891A
 packing unit: 10 pieces

Replacement spring probe



for amplifier board 804353
 P/No: LTP-25TJ-4
 Agilent P/No: E3963A
 Spring force 4 oz (110 cN)
 at working travel .315" (8,00 mm)

Sensor Plate for Polarity Check



for SMT capacitors Size D
 Size: .298" x .191" (7,6 x 4,9 mm)
 P/No: 805286
 Agilent P/No: E3892A
 packing unit: 10 pieces

Short Hanger Probe



P/No: HTJ-25A
 OAL: 1.25" (31,8 mm)
 Plunger length: .279" (7,1 mm)
 Full Travel: .220" (5,6 mm)
 Working travel: .167" (4,2 mm)
 Spring force: 3.5 oz (100cN)
 at working travel

Long Hanger Probe



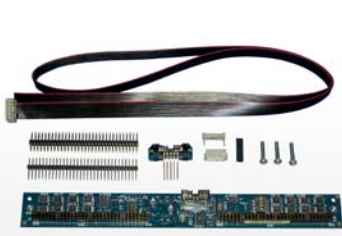
P/No: SPL-25A-331
OAL: 1.625" (41,3 mm)
Plunger length: .654" (26,1 mm)
Full travel: .220" (5,6 mm)
Working travel: .167" (4,2 mm)
Spring force: 3.5 oz (100 cN)
at working travel

Extra Long Hanger Probe



P/No: SPL-25A-332
OAL: 2" (50,8 mm)
Plunger length: 1.029" (26,1 mm)
Full travel: .220" (5,6 mm)
Working travel: .167" (4,2 mm)
Spring force: 3.5 oz (100 cN)
at working travel

VTEP MUX Card pkg



P/No: 816634
Agilent P/No: N4300A
Signal Conditioning MUX Card

- It includes**
- 1 MUX Card
 - connectors
 - ribbon cable

VTEP Sensor Plate 2.5" x 2.5"



63,5 x 63,5 mm
P/No: 816773
Agilent P/No: N4303A
packing unit: 1 piece

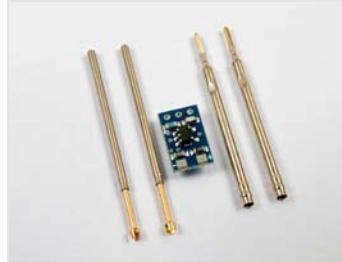
VTEP MUX + Ref Card pkg



P/No: 816635
Agilent P/No: N4307A
Connect Check MUX card

- It includes**
- 1 MUX + Ref Card
 - connectors
 - ribbon cable

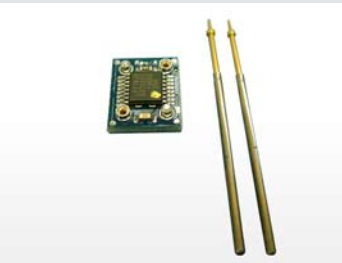
VTEP Polarity Check Vertical Amplifier pkg



P/No: 816660
Agilent P/No: N4311A / N4312A

- It includes**
- 1 amplifier board
 - 2 probes 805284
 - 2 receptacles 805287

VTEP Horizontal Amplifier pkg



P/No: 816636
Agilent P/No: N4301A / N4313A

- It includes**
- 1 Amplifier board
 - 2 probes LTP-25TJ-4 (Agilent P/No E3963A)

Sensor Plate for VTEP Polarity Check



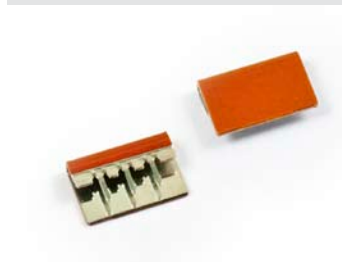
for SMT capacitors size B-C
size .248" x .147" (6,3 mm x 3,7 mm)
P/No: 805285
Agilent P/No: E3891A
packing unit: 10 pieces

VTEP Sensor Plate 1.2" x 1.2"



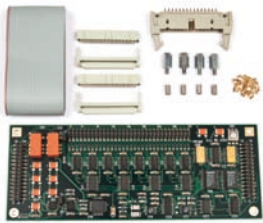
30,5 x 30,5 mm
P/No: 816772
Agilent P/No: N4302A
packing unit: 1 piece

Sensor Plate for VTEP Polarity Check



for SMT capacitors size D
size .298" x .191" (7,6 mm x 4,9 mm)
P/No: 805286
Agilent P/No: E3892A
packing unit: 10 pieces

OFM Card pkg for up to 32 sensors

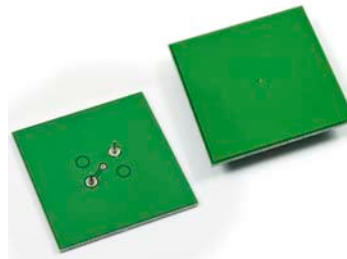


P/No: 833301
GR P/No: 9004-0482-00

It includes

- 1 OFM card
- connectors
- ribbon cable

Sensor Plate 1.25" x 1.25" x .050" thick



31,8 x 31,8 x 1,3 mm thick
P/No: 806435

packing unit: 10 pieces

OX Sensor Connection Board pkg



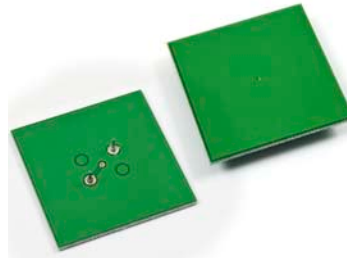
(passive probe plate)

P/No: 806448

It includes

- 1 sensor connection board
- 2 hanger probes HTJ-25A

Sensor plate 2.56" x 2.56" x .050" thick

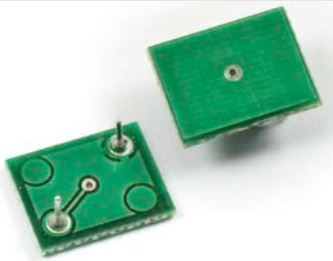


65 x 65 x 1,3 mm thick

P/No: 806436

packing unit: 1 piece

Sensor Plate .475" x .375" x .050" thick



12,0 x 9,5 x 1,3 mm thick

Size S014, S016

P/No: 806437

packing unit: 10 pieces

Sensor Plate 6.25" x .500" x .050" thick

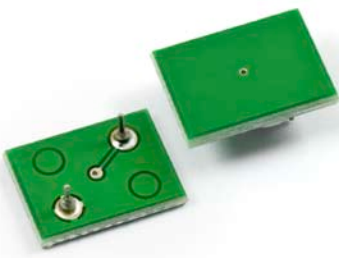


159 x 12,7 x 1,3 mm thick

P/No: 806439

packing unit: 1 piece

Sensor plate .575" x .425" x .050" thick



14,6 x 10,8 x 1,3 mm thick

Size S020

P/No: 806438

packing unit: 10 pieces

Teradyne: FrameScan Plus & FrameScan FX 2.0 Parts

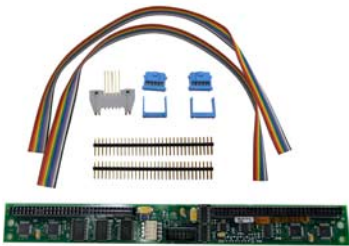
FrameScan FX 2.0 Fixture Kit pkg



for up to 64 sensors
 P/No: 825604
 Teradyne P/No: 602-946-00

It includes
 1 FrameScan FX 2.0 Selector Board (MUX Card)
 connectors
 ribbon cable

FrameScan Plus MUX Card pkg

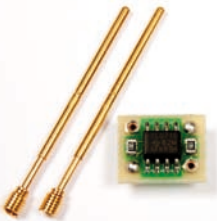


for up to 64 sensors
 P/No: 805960

It includes
 1 FrameScan Plus MUX Card
 connectors
 ribbon cable

Will not work with Teradyne Test Station Ultra Pin

ECT Hanger FrameScanPlus Amplifier pkg

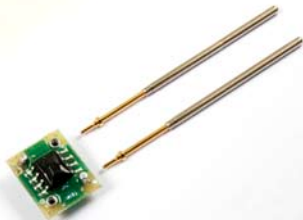


P/No: 804855
 Teradyne P/No: 047-531-00
 Signal Conditioner + Reference Board

It includes

- 1 amplifier board with 2 tapped pins SAP-25W-3
- 2 hanger probes with spiral spring head HTJ-25A (Teradyne P/No 047-534-00)

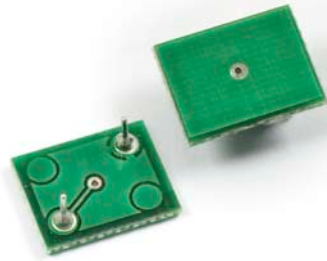
FrameScan FX 2.0 Horizontal Amp pkg



P/No: 825510
 Teradyne P/No: 093-284-00

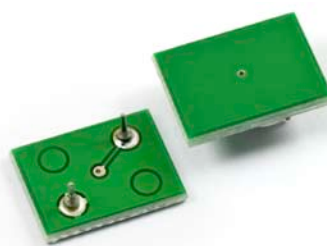
It includes
 1 amplifier board
 2 probes like LTP-25TJ-4

Sensor Plate .475" x .375" x .050" thick



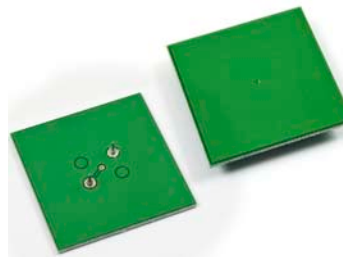
12,0 x 9,5 x 1,3 mm thick
 Size S014, S016
 P/No: 806437
 Teradyne P/No: 090-360-00
 packing unit: 10 pieces

Sensor plate .575" x .425" x .050" thick



14,6 x 10,8 x 1,3 mm thick
 Size S020
 P/No: 806438
 Teradyne P/No: 090-361-00
 packing unit: 10 pieces

Sensor Plate 1.25" x 1.25" x .050" thick



31,8 x 31,8 x 1,3 mm thick
 P/No: 806435
 Teradyne P/No: 090-363-00
 packing unit: 10 pieces

Sensor plate 2.56" x 2.56" x .050" thick



65 x 65 x 1,3 mm thick
 P/No: 806436
 Teradyne P/No: 090-364-00
 packing unit: 1 piece

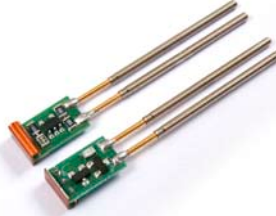
Teradyne: FrameScan Plus & FrameScan FX 2.0 Parts

Sensor Plate 6.25" x .500" x .050" thick



159 x 12,7 x 1,3 mm thick
P/No: 806439
Teradyne P/No: 090-362-00
packing unit: 1 piece

Assembled Vertical Polarity Check part

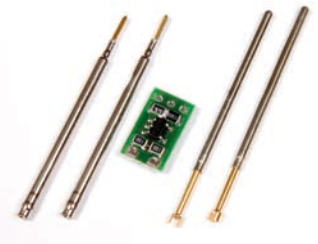


P/No of ECT Munich:
SP-0074
P/No of Dover/Hungary:
805283A-BC

It includes

- 2 spring probes 805284
 - 1 sensor plate B-C 805285
 - soldered to amplifier board 805283
- packing unit: 1 piece

CapScan Vertical Amplifier pkg

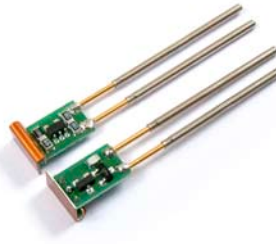


P/No: 805283

It includes

- 1 amplifier board
 - 2 probes 805284
 - 2 receptacles 805287
- packing unit: 1 package

Assembled Vertical Polarity Check part

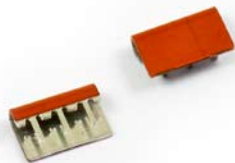


P/No of ECT Munich:
SP-0075
P/No of Dover/Hungary:
805283A-D

It includes

- 2 spring probes 805284
 - 1 sensor plate D 805286
 - soldered to amplifier board 805283
- packing unit: 1 piece

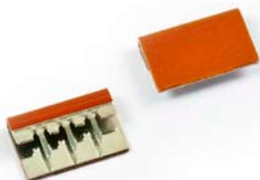
Sensor Plate for Polarity Check



for SMT capacitors size B-C

size .248" x .147" (6,3 x 3,7mm)
P/No: 805285
packing unit: 10 pieces

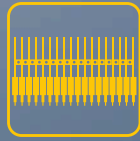
Sensor Plate for Polarity Check



for SMT capacitors size D

size: .298" x .191" (7,6 x 4,9 mm)
P/No: 805286
packing unit: 10 pieces





SPECIAL PRODUCTS

LED Analog Color Analyser 2 and 8 Channel

LEDCHECK™ II and LEDCHECK™ VIII are a modular assembly designed specifically for color testing light emitting diodes on printed circuit boards under test on automatic test equipment. Each module can accommodate 2 or 8 LED's and modules can easily be cascaded should the need for additional channels arise.

Each channel measures true color of the LED under test, and provides an analog output to the test system proportional to the wavelength of the light detected from the LED. Using digital channel addressing, the channel selection is also under control of the test system.

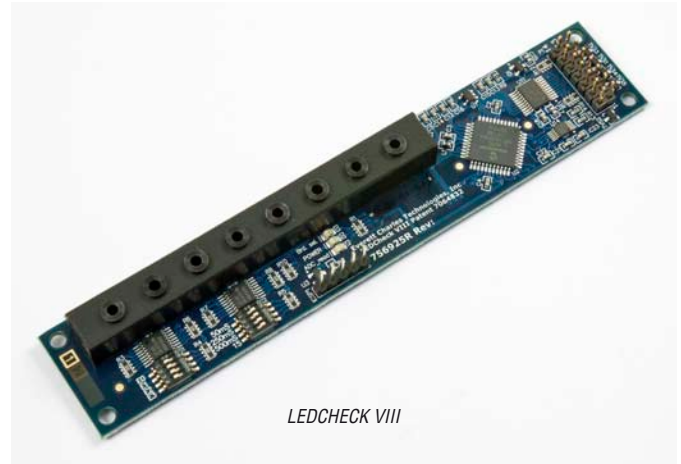
While the color measurement system has good wavelength accuracy designed in, various factors influence the true accuracy of the measurement. The treatment of the fibers, peak versus dominant wavelength of the LED with clear, tinted, or diffused lens and temperature influence the measurement of color. The LEDCHECK color test module is not a spectrometer, but rather an inexpensive multi-channel color-measuring device with excellent repeatability. Once the hardware and measurement are setup, LEDCHECK can be relied upon to perform the color tests within the prescribed criteria.

Applications

- PCB LED Testing
- Automotive Dashboard / Brake Lights / Daytime running lights / Interior
- Switches with LED Backlighting
- Mobile Applications / Cell Phones / Backlighting
- Industrial and Medical Instruments
- Signalling
- Architectural Lighting

Key Features

- Designed for any Test Platforms due to analog output
- Tests the full spectrum of visible LED's
- Tests Intensity from very dim to the brightest LED's
- Unrivalled repeatability for color and intensity readings
- Available with 2 or 8 channels
- Allows up to 128 LED's to test simultaneously with several modules
- Analog Interface with voltage readout
- Ease of Use – Instant on
- Excellent Technical Support
- Robust and small design



LEDCHECK VIII

Specifications

Mechanical

Board Dimensions (WxLxH)	1.00" x 5.375" x 0.57" (25,4mm x 136,5mm x 14,5mm)
Mounting Dimensions (WxL Ø)	0.75" x 5.125" Ø 0.128" (19mm x 130,2mm Ø 3,25mm)
Operating Temperature Range	0°C to +50°C

Electrical

Supply Voltage	5,0 V DC
Supply Current	< 60 mA
Interface	Analog Signal (Voltage)

Optical

Wavelength Range	400 nm to 650 nm
Luminous Intensity	1-2000 mcd

Accuracy

Accuracy per Channel	± 3%
Accuracy Channel to Channel	± 1%

Partnumber

Analog LEDCHECK II	756927
Analog LEDCHECK VIII	756926



LEDCHECK VIII package



Optical Fiber Cable

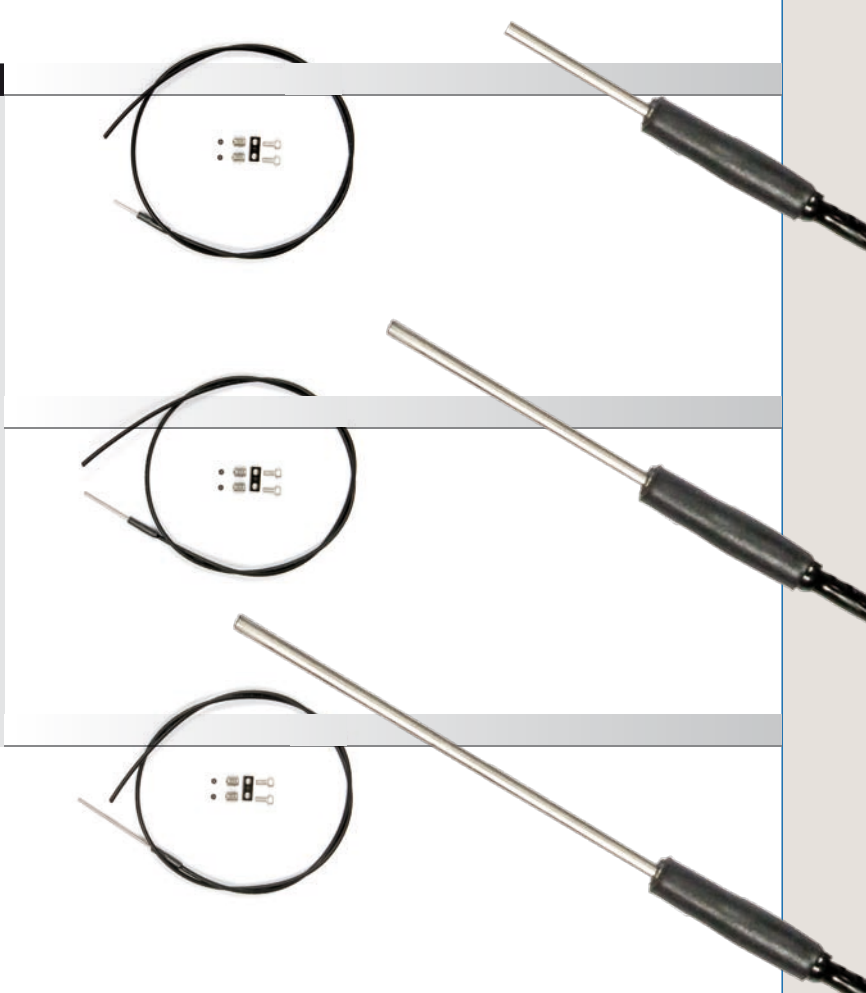
The Optical Fiber Cable includes a fastening kit to support each fiber cable to the adapter. The LEDCHECK Module end of the fiber cable is only being cut in length, making it easy to adjust and attach the fiber cable to the module. The light source end of the cable comes with different length metal tubes (tips) as listed below.

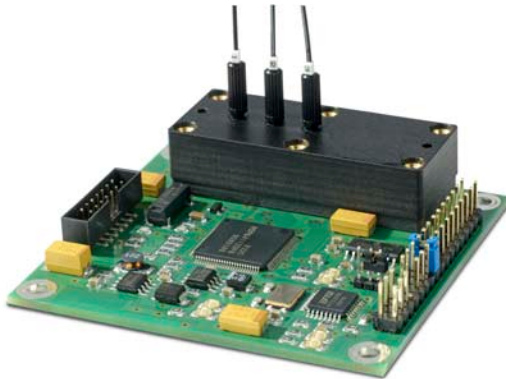
Technical Details

Fiber Cable Outer Diameter:	0.087" (2,20 mm)
Fiber Cable Length:	27" (680 mm)
Metal Tube Length:	0.75" (19 mm)
Metal Tube Length:	1.25" (31 mm)
Metal Tube Length:	2.00" (50 mm)

Part Numbers

Optical Fiber Cable 0.75" long Tube:	756309
Optical Fiber Cable 1.25" long Tube:	756307
Optical Fiber Cable 2.00" long Tube:	756308





Digital LEDCHECK 3 or 5 Channel

The ECT Digital Color Analyzer allows fast and automatic testing the Color and Brightness (Intensity) of Light Emitting Devices (LEDs). Tests the full spectrum of visible LEDs from very dim to the brightest on the market.

The new digital color sensor allows unrivalled repeatability for color and intensity testing.

Applications

- PCB LED Testing
- Automotive Dashboard / Brake Lights, Daytime running lights / Interior
- Switches with LED Backlighting
- Mobile Applications - Cell Phones, Backlighting
- Industrial and Medical Instruments
- Signalling
- Architectural Lighting

Key Features

- Designed for any Test Platforms
- Tests the full spectrum of visible LEDs
- Tests Intensity from very dim to the brightest LEDs
- Unrivalled repeatability for color and intensity readings
- Available with 3 or 5 channels
- Allows up to 495 LEDs to test simultaneously
- Ease of Use – Instant on
- Excellent Technical Support
- Free Drivers and Software
- Designed for Testing Color and White LEDs
- Tests Bicolor and Tricolor LEDs
- RS 232 and USB Interface
- Robust and reliable design
- Uses flexible plastic Optical Fibres for ease of installation

Specifications LEDCHECK with 1mm Fiber

Mechanical

Board Dimensions (WxLxH)	70 x 65 x 35mm
Optical Fiber Length	600 mm
Fiber Outer diameter including cladding	1,00 mm
Number of Optical Fibers	3 or 5 pieces
Tightest bend radius of Fiber	15 mm
Operating Temperature Range	0°C to +50°C

Electrical

Supply Voltage	5,0 V
Supply Current	80 mA
Interface	RS232 (Serial) and USB

Optical

Red Peak Efficiency Wavelength	615 nm
Green Peak Efficiency Wavelength	540 nm
Blue Peak Efficiency Wavelength	465 nm
Total Operating Wavelength Range	450 nm to 650 nm

Accuracy

White	$x = \pm 0,0015, y = \pm 0,0015$
Red (615nm)	± 3 nm
Green (540nm)	± 4 nm
Blue (465nm)	± 3 nm

Partnumber

LEDC-3-1	Digital LEDCHECK III
LEDC-5-1	Digital LEDCHECK V

Specifications LEDCHECK with 2.2mm Fiber

Same as above with the exception that the fiber optic cable diameter is increased to 2,2mm for improved light intensity measurements.

Mechanical

Optical Fiber Length	600 mm
Fiber Outer diameter including cladding	2,20 mm
Number of Optical Fibers	3 or 5 pieces
Tightest bend radius of Fiber	17,6 mm

Partnumber

LEDC-3-2	Digital LEDCHECK III
LEDC-5-2	Digital LEDCHECK V



LEDCHECK V

Optical Head

The Optical Head has been designed to reduce the placement sensitivity of the Optical Fiber when testing LED's.

Optical Head Outer diameter	4,55 mm
Optic capture angle	12 degrees
Optical Fiber Outer diameter	1,00 mm

Part Numbers

Optical Head OH - 1,	Length: 36,75 mm
Optical Head OH - 2,	Length: 27,00 mm
Optical Head OH - 3, with Fiber Clamp	Length: 49,50 mm

Optical Fiber Clamp

Attachment for positioning the thin fiber with 1mm outside diameter

Partnumber

Fiber Clamp for 1,0 mm Optical Fiber	CC - 1
Fiber Clamp for 2,2 mm Optical Fiber	CC - 2

Optical Fiber Receptacle

75 mil receptacle with pressing
75 mil receptacle for positioning the 1mm Optical fiber

Partnumber

Receptacle	LTR-1W
------------	--------

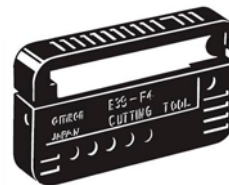
Optical Fiber Knife

Cutting tool for the optical fiber 1,0 mm and 2,2 mm fiber can be shortened with a the fiber knife to the correct length.

In order to guarantee a clean cut of the fiber it is recommended to use each cutting hole only once.

Partnumber

Optical Fiber Knife	OFK - 2
---------------------	---------



Board Marker Probe

Board Marker Probe

The BMP-1 Board Marker Probe patented design is for installation on bare board or loaded board test fixtures. When your tester is equipped with the appropriate electronics and software, the BMP-1 scribes a permanent .050" circle on every "passed" PCB tested. Boards that fail the test are not marked. The risk of human error is eliminated in PCB testing and sorting.

The unit requires less than .500" of fixture area. It is designed to mark board areas of bare glass (FR4), solder mask over glass or copper, or bare tinned copper.

The BMP-1 includes a mounting receptacle with press ring, and a motor/transmission assembly. It can be easily removed from the receptacle for use in other fixtures. Spare receptacles and tip replacement assemblies are available. The thread between receptacle and housing is 7/16-20 UNF.

Consult factory for information on electronic and software requirements, and replacement receptacles and tip assemblies.

Probe Specifications BMP-1

Mechanical

Full Marker Tip Travel	.062 (1.57)
Recommended Working Travel	.050 (1.27)
Direction of Rotation	CCW
Scribed Diameter	0.50 (1.27)

Electrical (Operating Conditions)

Current Rating	50 mA
Voltage Rating	15 VDC
Recommended Duty Cycle	1 sec. On (min.), 5 sec. Off

Materials and Finishes

Plunger Tip	Carbide
Receptacle	Stainless steel

Mounting Hole Size

.468/.469
(11.89/11.91)

To Order

Specify model number of components or tools you require:

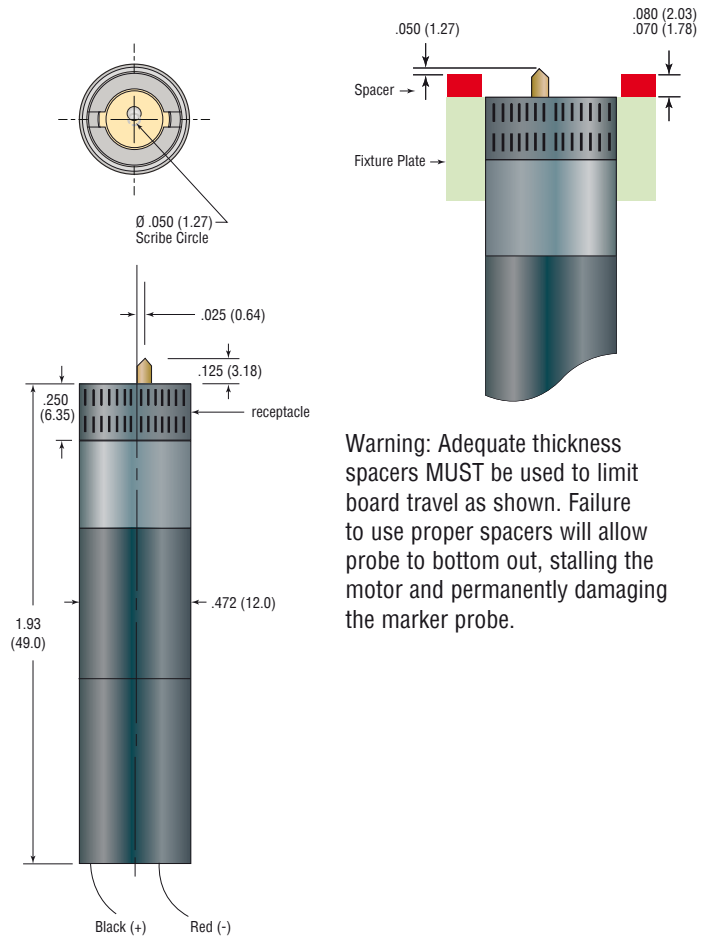
BMP-1: Probe and receptacle, wires and male + female connectors included, (-red, + black).

BMR-1: Receptacle only.

BMT-1: Tip replacement assembly for BMT-1.

RIT-BMP: Receptacle insertion tool for BMR-1.

EXT-BMP: Receptacle extraction tool for BMR-1.

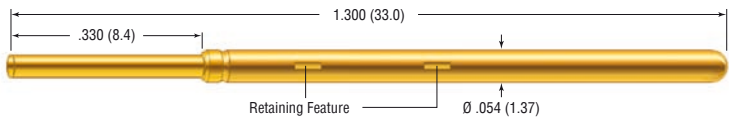


Warning: Adequate thickness spacers MUST be used to limit board travel as shown. Failure to use proper spacers will allow probe to bottom out, stalling the motor and permanently damaging the marker probe.



Personality Pins

- P/No: PP-3070-S
- Agilent P/No: Mint Pins 44275P
- Packing unit: 200 pieces



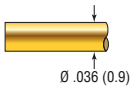
Indicator Probe

This probe is a special use probe to check the probe stroke of a test fixture. Barrel deformations are located in the front of the assembly to hold the plunger after activation at its compressed positions. Subsequently the stroke of the test fixture can be measured. Thenafter, the plunger can be pulled back with tweezers to the extended position.

- P/No: POGO-25IP-C
- Typ. life expectation: 50 cycles
- To be used in size 25 receptacles like SPR-25W-x
- Packing unit: 10 pieces

Other dimensions 75 mil or 50 mil upon request.

POGO-25IP-C



Test Connectors

Test Connectors are typically used for Final or Functional Test, whereas the Test Connector is pneumatically driven into the test object's connector.

The Test Connectors are free floating or can be used with a self-guiding block to pre-align the connector before engaging the test object.

All Test Connectors are designed and made with High Performance Plastic to assure high lifecycles of typically up to 100,000 insertions.

ECT offers a variety of other connector types, pin counts or custom cable lengths for:

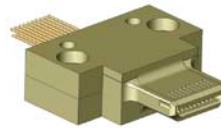
- TAE
- Power DC (2.1mm Ø)
- LVDS
- RTX
- Various others...

Note

These "Made in Germany" Connectors are sold worldwide by ECT-Munich only.

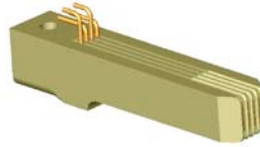
HDMI Connector

Model Number:	HDMI Connector
Connectors:	19 Pins Gold Plated
Housing Material:	High Performance Plastic
Voltage Rating:	max. 40V
Wiring:	none / upon request
Part Number:	15.52.59.00.0



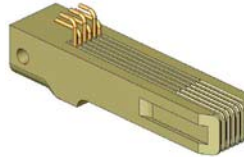
4-Pin Mini Western Connector (900mm cable)

Model Number: 4-Pin Western Connector
 Connectors: 4 Pins Gold Plated
 Housing Material: High Performance Plastic
 Voltage Rating: max. 230V
 Wiring: 900mm Color Coded Ribbon Cable
 Part Number: 10.41.67.00.0



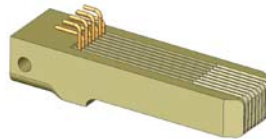
6-Pin Mini Western Connector (900mm cable)

Model Number: 6-Pin Western Connector
 Connectors: 6 Pins Gold Plated
 Housing Material: High Performance Plastic
 Voltage Rating: max. 230V
 Wiring: 900mm Color Coded Ribbon Cable
 Part Number: 10.41.68.00.0



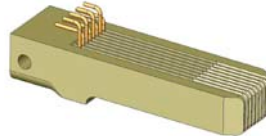
8-Pin Mini Western Connector (900mm cable)

Model Number: 8-Pin Western Connector
 Connectors: 8 Pins Gold Plated
 Housing Material: High Performance Plastic
 Voltage Rating: max. 230V
 Wiring: 900mm Color Coded Ribbon Cable
 Part Number: 10.41.69.00.0



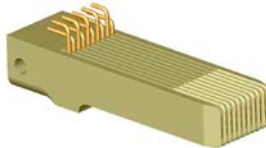
8-Pin Mini Western Connector (250mm cable)

Model Number: 8-Pin Western Connector
 Connectors: 8 Pins Gold Plated
 Housing Material: High Performance Plastic
 Voltage Rating: max. 230V
 Wiring: 250mm Color Coded Ribbon Cable
 Part Number: 10.41.70.00.0



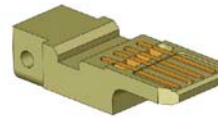
10-Pin Mini Western Connector (300mm cable)

Model Number: 10-Pin Western Connector
 Connectors: 10 Pins Gold Plated
 Housing Material: High Performance Plastic
 Voltage Rating: max. 230V
 Wiring: 300mm Color Coded Ribbon Cable
 Part Number: 10.41.57.00.0



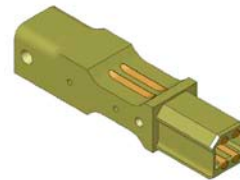
4-Pin USB Connector Type A

Model Number:	4-Pin USB Connector Type A
Connectors:	4 Pins Gold Plated
Housing Material:	High Performance Plastic
Electrical Rating:	max. 40V / max. 2.5A
Wiring:	none / upon request
Part Number:	10.14.40.00.0



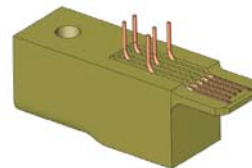
4-Pin USB Connector Type B

Model Number:	4-Pin USB Connector Type B
Connectors:	4 Pins Gold Plated
Housing Material:	High Performance Plastic
Voltage Rating:	max. 40V
Wiring:	none / upon request
Part Number:	10.14.46.00.0



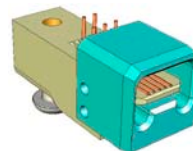
5-Pin USB Mini Connector

Model Number:	5-Pin USB Mini Connector
Connectors:	5 Pins Gold Plated
Housing Material:	High Performance Plastic
Voltage Rating:	max. 40V
Wiring:	none / upon request
Part Number:	10.14.66.00.0



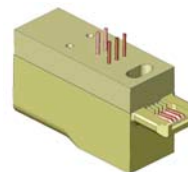
5-Pin USB Mini Connector with Guiding Feature

Model Number:	5-Pin USB Mini Connector Guiding
Connectors:	5 Pins Gold Plated
Housing Material:	High Performance Plastic
Voltage Rating:	max. 40V
Wiring:	none / upon request
Part Number:	10.14.67.00.0



5-Pin USB Micro Connector

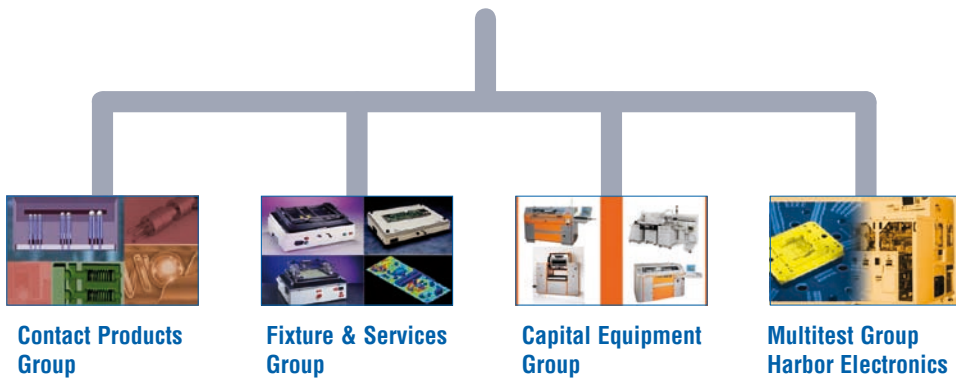
Model Number:	5-Pin USB Micro Connector
Connectors:	5 Pins Gold Plated
Housing Material:	High Performance Plastic
Voltage Rating:	max. 40V
Wiring:	none / upon request
Part Number:	10.14.57.00.0





**EVERETT CHARLES
TECHNOLOGIES**

A **DOVER** COMPANY



European Sales Office

EVERETT CHARLES TECHNOLOGIES
Muenchener Straße 19
D-85540 Haar
Germany
E-mail: ectmuc@ectinfo.

Ihr ECT & OB Partner in der Schweiz:

L. Bodenmann AG
Prüftechnik für die Industrie
Langfuristrasse 2
8548 Ellikon a.d. Thur

Tel. 052 369 00 50
Fax 052 369 00 57

info@bodenmann-ag.ch
www.bodenmann-ag.ch



Production portfolio of ECT and affiliates

- ❖ Spring loaded probes
- ❖ Fixtures for ICT- & Functional tests
- ❖ Test interface boards
- ❖ Contactors for semiconductor integrated circuits
- ❖ Test handlers
- ❖ Bareboard test equipment

World Headquarters

Everett Charles
Technologies
700 East Harrison Avenue
Pomona, CA 91767, USA
Phone: +1 909-625-5551
Fax: +1 909-624-9746
Web: www.ectinfo.com

European Sales Office

Everett Charles
Technologies
Muenchener Str. 19
D-85540 Haar
Phone: +49 (0) 89-429204
Fax: +49 (0) 89-428282
E-mail: ectmuc@ectinfo.com
Internet: www.ectinfo.de

Ihr ECT & OB Partner in der Schweiz:

L. Bodenmann AG
Prüftechnik f>r die Industrie
Langfuristrasse 2
8548 Ellikon a.d. Thur

Tel. 052 369 00 50
Fax 052 369 00 57

info@bodenmann-ag.ch
www.bodenmann-ag.ch



**EVERETT CHARLES
TECHNOLOGIES**

A **DOVER** COMPANY