

## FIXTURE ACCESSORIES

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



EVERETT CHARLES  
TECHNOLOGIES

A DOVER COMPANY

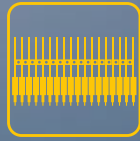


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## **MASS INTERCONNECT PRODUCTS**

## 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/ HP-IB / IEEE-488).

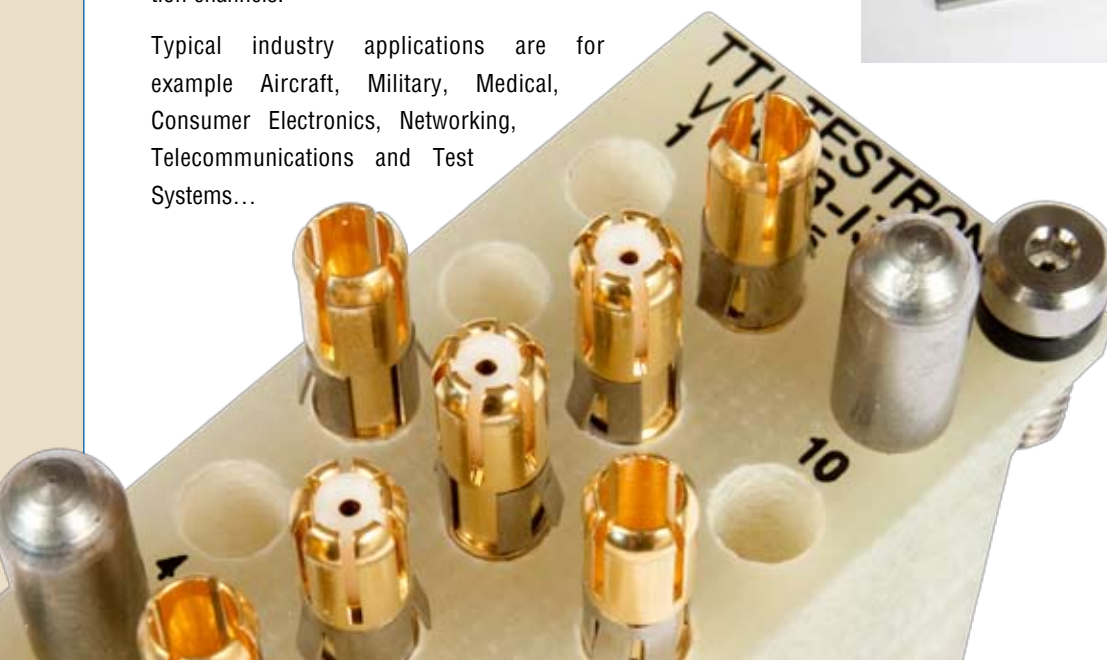
**There are a number of different block types:**

- ❖ “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.

**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.

**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).

**24 Block Double-Row Rack Mount Receiver**

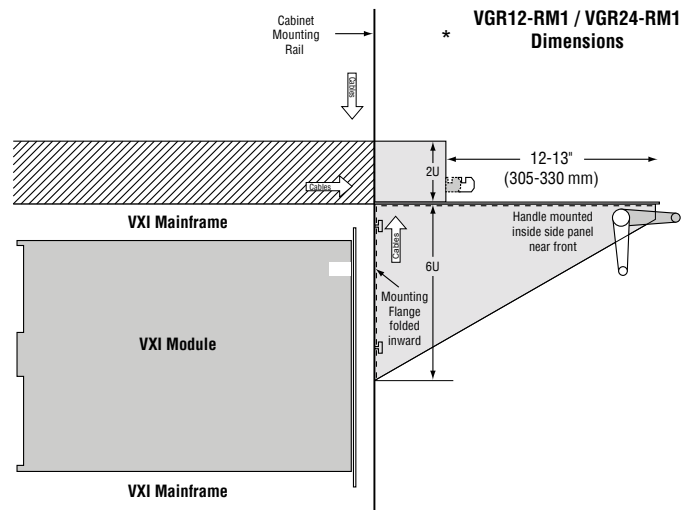


Model Number: VGR24-RM1  
P/No: 206  
Same as above VGR24 but for mounting in a 19" Rack.

**12 Block Rack Mount Receiver**



Model Number: VGR12-RM1  
P/No: 140  
Same as above VGR12 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

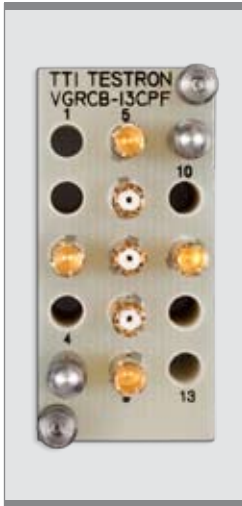
**It includes**  
 2 installed bushings  
 2 screws 4-40  
 13 installed coax contacts

- 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

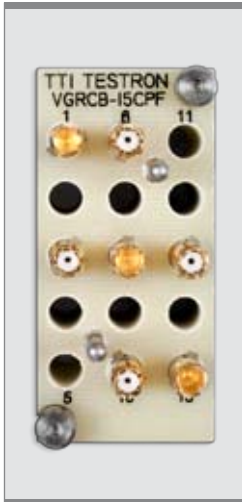
**It includes**

- 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

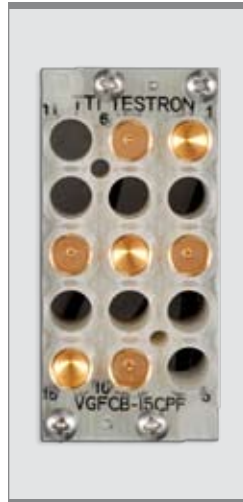
**It includes**

- 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**

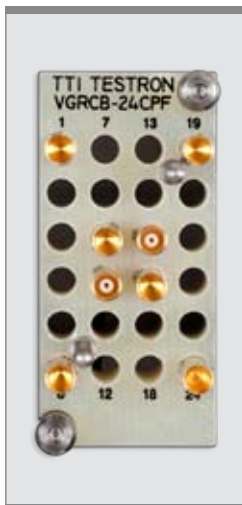
- 2 installed bushings
- 2 screws 4-40
- 22 holes (without contacts)

**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

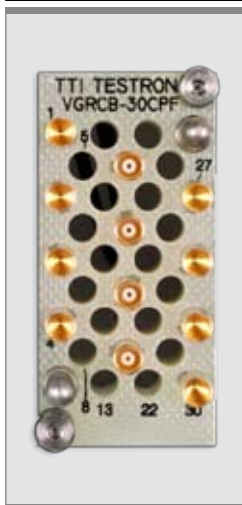
**It includes**

- 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



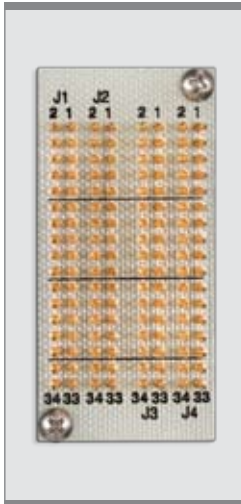
Model Number VGFCB-13PNEU  
 P/No 903

**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

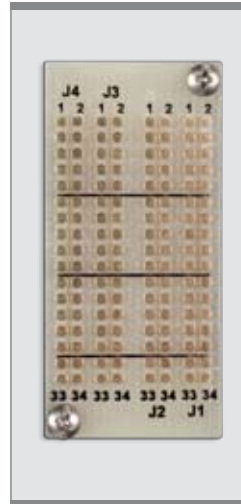
Receptacles: SPR-2W-2 with square WW-pin

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

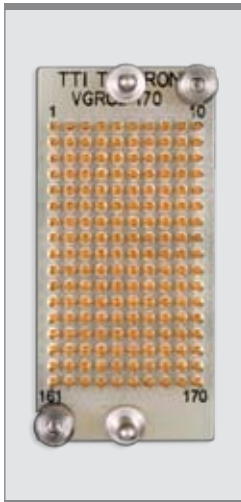
2 screws 4-40

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

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**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

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**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

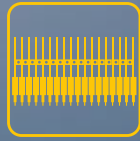
**Extraction tools**

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:

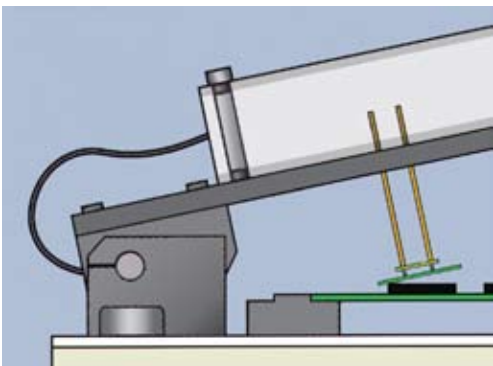
- HP/Agilent with TestJet and VTEP parts
- GenRad with OpensXpress parts (now part of Teradyne Inc.)
- Teradyne with FrameScan Plus and FramScan FX2.0 parts.

### ECT itself developed the Hanger probes:

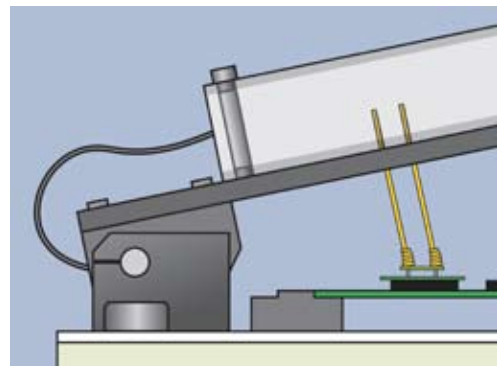


### Hanger Probe

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.



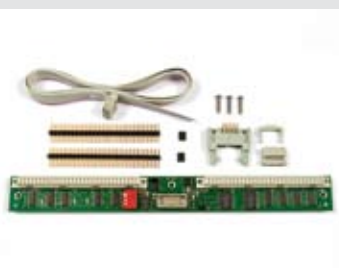
Old style during gate closure. Note stress interference due to non-compliance in the sesor probe combination.



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



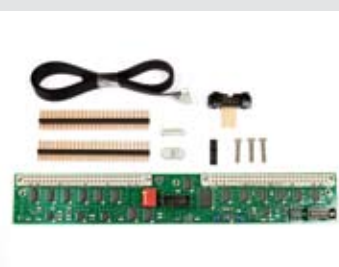
### TestJet MUX Card pkg



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

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

### 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

### 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)

### 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 .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

### 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

### 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

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



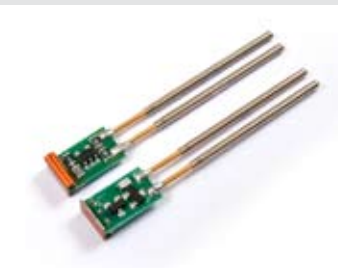
**65 x 65 x 1,3 mm thick**  
 P/No: 806436  
 Agilent P/No: E3854A  
 packing unit: 1 piece

### 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

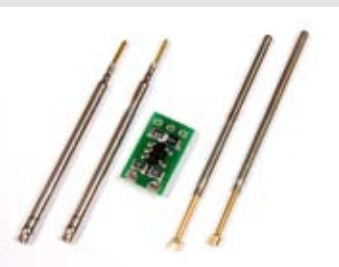


P/No of ECT Munich:  
 SP-0074  
 P/No of Dover/Hungary:  
 805283A-BC

#### 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

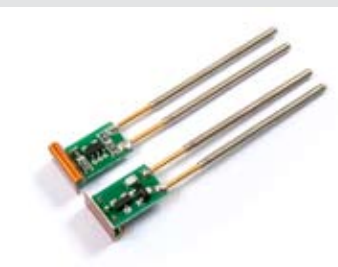


P/No: 805283  
 Agilent P/Nos: E3845A /  
 E3847A

#### 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



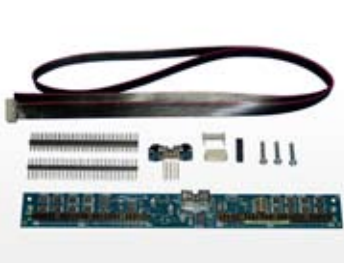
P/No: SPL-25A-331  
 OAL: 1.625" (41,3 mm)  
 Plunger length: .654" (26,1 mm)  
 Full travel: .220" (5,6 mm)  
 Working travel: .167" (4,2 mm)  
 Spring force: 3.5 oz (100 cN)  
 at working travel

## 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

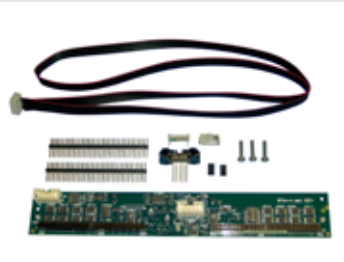
- It includes**
- 1 MUX Card
  - connectors
  - ribbon cable

### 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

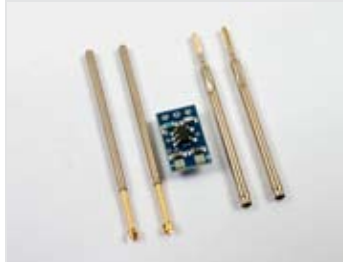
### VTEP MUX + Ref Card pkg



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

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

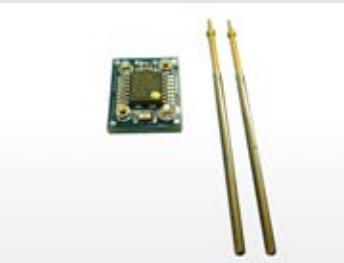
### VTEP Polarity Check Vertical Amplifier pkg



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



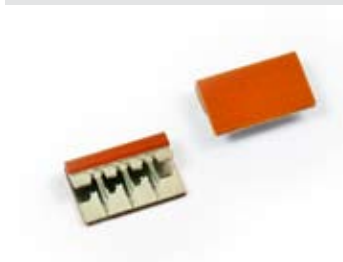
**for SMT capacitors size B-C**  
size .248" x .147" (6,3 mm x 3,7 mm)  
P/No: 805285  
Agilent P/No: E3891A  
packing unit: 10 pieces

### 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

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**It includes**  
 1 FrameScan FX 2.0 Selector Board (MUX 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  
 Teradyne P/No: 090-361-00  
 packing unit: 10 pieces

## ECT Hanger FrameScanPlus Amplifier pkg



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

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**It includes**

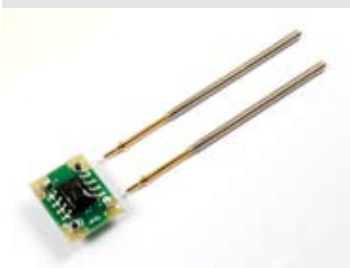
- 1 amplifier board with 2 tapped pins SAP-25W-3
- 2 hanger probes with spiral spring head HTJ-25A (Teradyne P/No 047-534-00)

## 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

## FrameScan FX 2.0 Horizontal Amp pkg

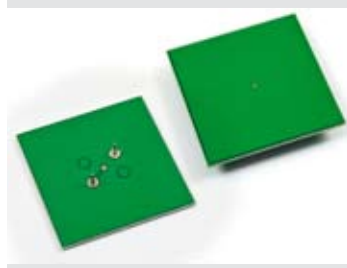


P/No: 825510  
 Teradyne P/No: 093-284-00

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

## 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

## 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

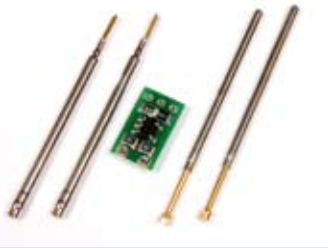
## Sensor Plate 6.25" x .500" x .050" thick



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

# Teradyne: FrameScan Plus & FrameScan FX 2.0 Parts

## 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

## Assembled Vertical Polarity Check part



P/No of ECT Munich:  
SP-0074

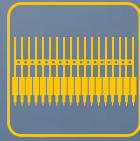
P/No of Dover/Hungary:  
805283A-BC

### It includes

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







## SPECIAL PRODUCTS

### LED Analog Color Analyser 8 Channel

LEDCHECK™ VIII is 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 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.

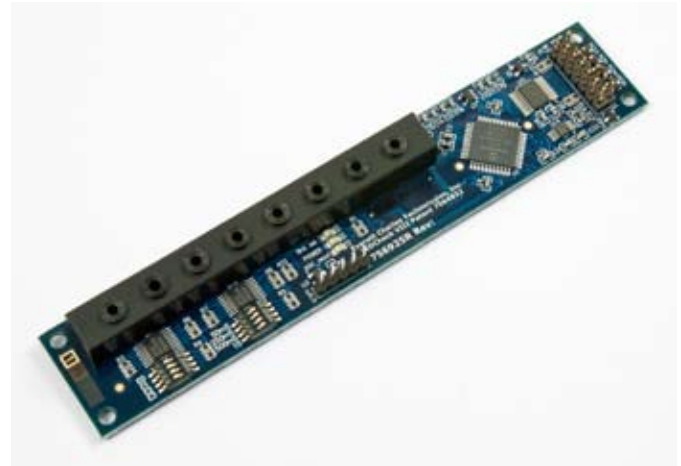
While the color measurement system has good wavelength accuracy designed in, various factors influence the true accuracy of the measurement. The treatment of the fibers, peak versus dominant wavelength of the LED with clear, tinted, or diffused lens and temperature influence the measurement of color. 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 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



### 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

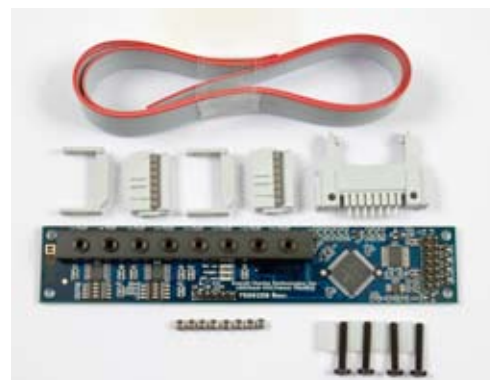
Total Operating Wavelength Range	400 nm to 650 nm
Luminous Intensity	1-2000 mcd

#### Accuracy

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

#### Partnumber

Analog LEDCHECK VIII	756926
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**Optical Fiber Cable**

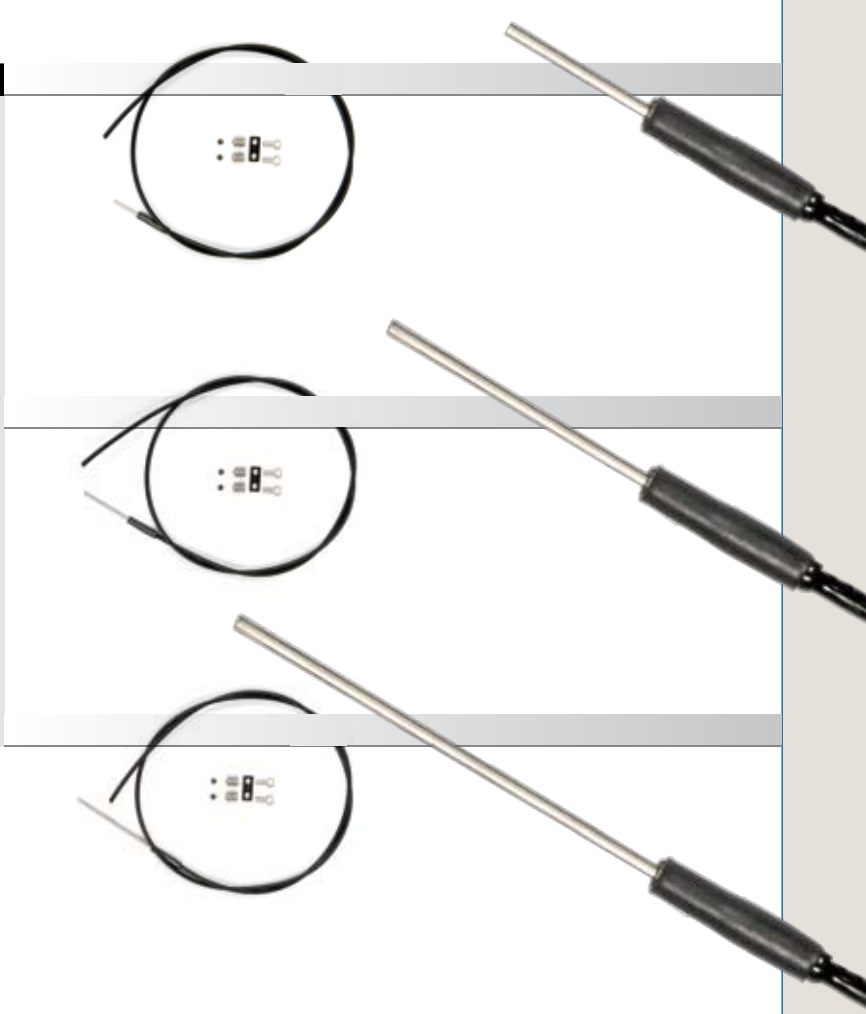
The Optical Fiber Cable includes a fastening kit to support each fiber cable to the adapter. The LEDCHECK Module end of the fiber cable is only being cut in length, making it easy to adjust and attach the fiber cable to the module. The light source end of the cable comes with different length metal tubes (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)	$\pm 3$ nm
Green (540nm)	$\pm 4$ nm
Blue (465nm)	$\pm 3$ 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
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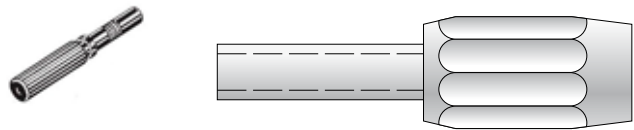
**Optical Fiber Knife**

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
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# 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:

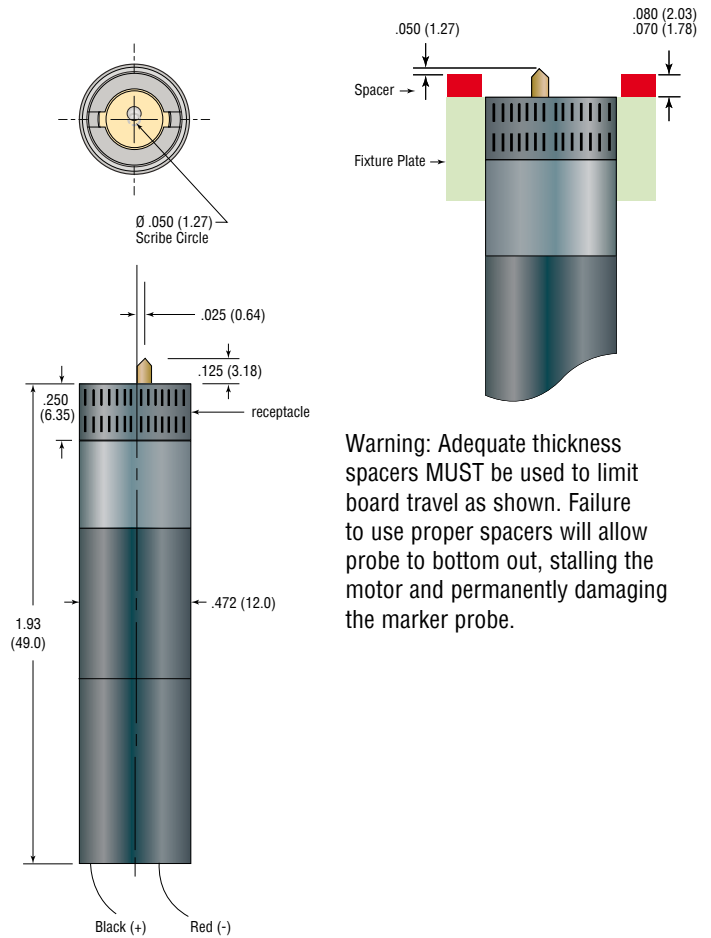
**BMP-1:** Probe and receptacle, wires and male + female connectors included, (-red, + black).

**BMR-1:** Receptacle only.

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

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

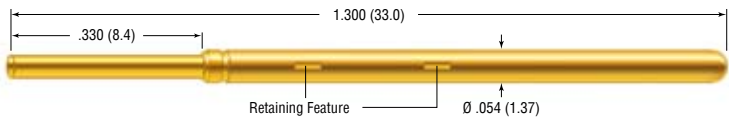
**EXT-BMP:** Receptacle extraction tool for BMR-1.





**Personality Pins**

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



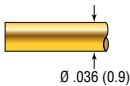
**Indicator Probe**

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
- 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



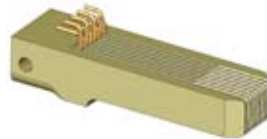
**6-Pin Mini Western Connector (900mm cable)**

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



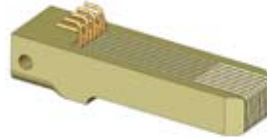
**8-Pin Mini Western Connector (900mm cable)**

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



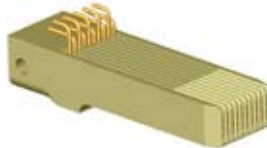
**8-Pin Mini Western Connector (250mm cable)**

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



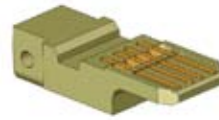
**10-Pin Mini Western Connector (300mm cable)**

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: 10.14.57.00.0



### 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



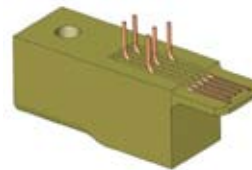
### 4-Pin USB Connector Type B

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



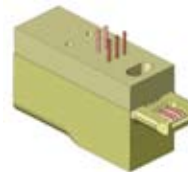
### 5-Pin USB Mini Connector with Guiding Feature

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





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