



## E1 set Immunity Development System

**LANGER**  
EMV-Technik



### Short description

The E1 is a set of EMC tools used for EMI suppression in printed circuit boards during the development phase. The developer can use the E1 set to quickly identify the causes of burst and ESD interference. This allows the developer to design suitable measures to solve the causes of the interference. It can also be used to test the effectiveness of the measures taken. The E1 test set-up is small and fits easily on a developer's desk. The E1 set user manual describes EMC mechanisms and provides detailed descriptions of basic measuring strategies for interference suppression in printed circuit boards. The E1 set includes a generator to generate burst and ESD disturbances.

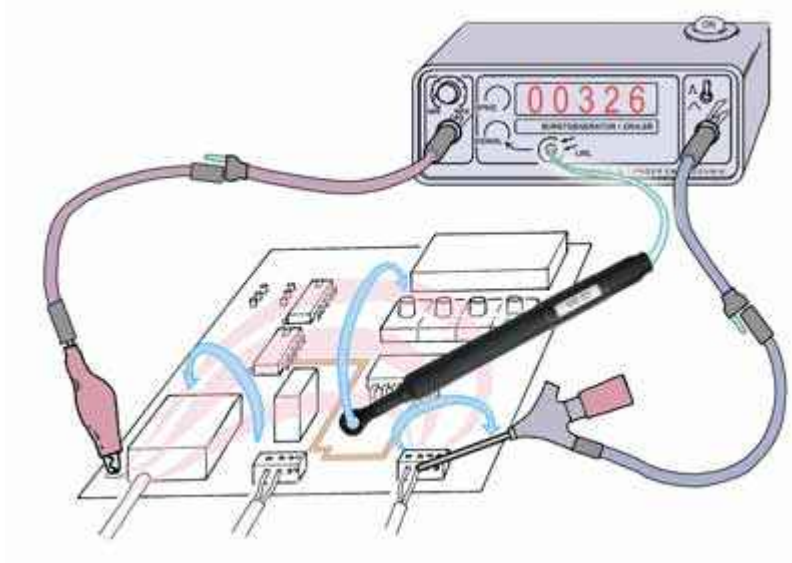
### Scope of delivery

- |                                  |                                   |
|----------------------------------|-----------------------------------|
| 1x SGZ 21, Burst Generator       | 1x S21, Optical Sensor (10 Mbps)  |
| 1x BS 02, Magnetic Field Source  | 1x BS 04DB, Magnetic Field Source |
| 1x BS 05D, Magnetic Field Source | 1x BS 05DU, Magnetic Field Source |
| 1x ES 00, E-Field Source         | 1x ES 01, E-Field Source          |
| 1x ES 02, E-Field Source         | 1x ES 05D, E-Field Source         |
| 1x ES 08D, E-Field Source        | 1x MS 02, Magnetic Field Probe    |
| 1x E1 acc, Accessories           | 1x NT FRI EU, Power Supply Unit   |
| 1x E1 case, System Case          | 1x E1 m, E1 Set User Manual       |

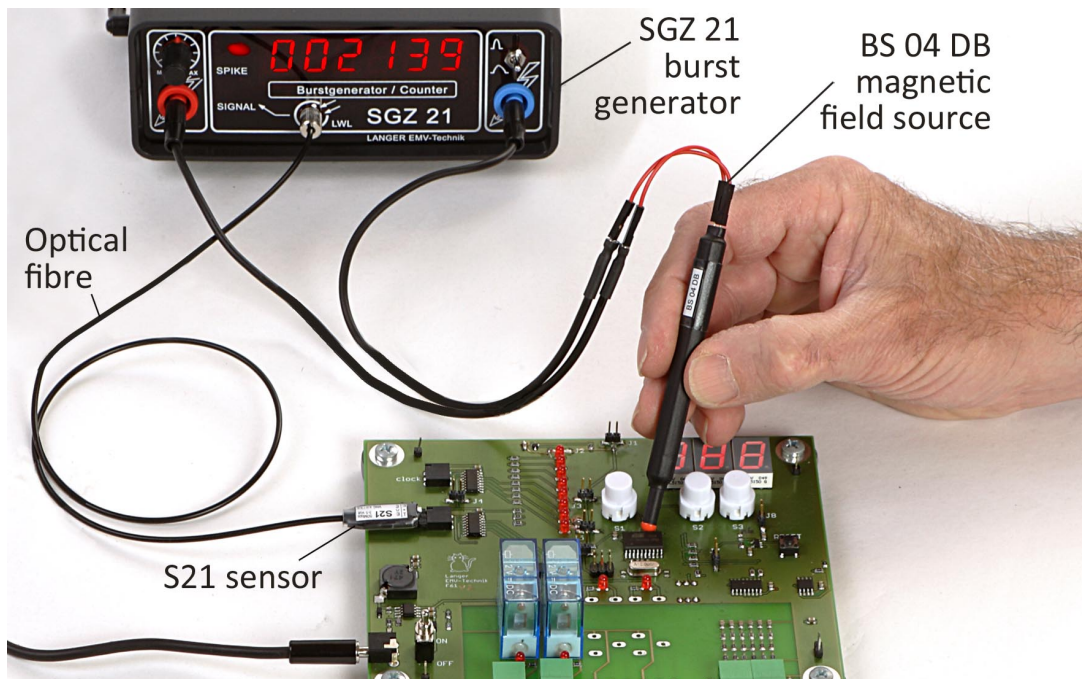
Technical parameters

<b>S21 optical sensor</b>	
Transmission range	DC...10 Mbps
Optical fibre connector	2.2 mm Ø
Supply voltage	(3-5) V
Current input	10 mA
<b>SGZ 21 burst Generator</b>	
Pulse parameter	
Rise time	ca. 2 ns
Tail time	ca. 10 ns
Peak values	ca. 0...1500 V
Optical input	
Optical fiber	2.2 mm
Max. frequency	5 MHz
Min. pulse width	100 ns
Supply voltage	12 V / 200 mA
Sizes (L x W x H)	(154 x 100 x 62) mm

Measuring principles



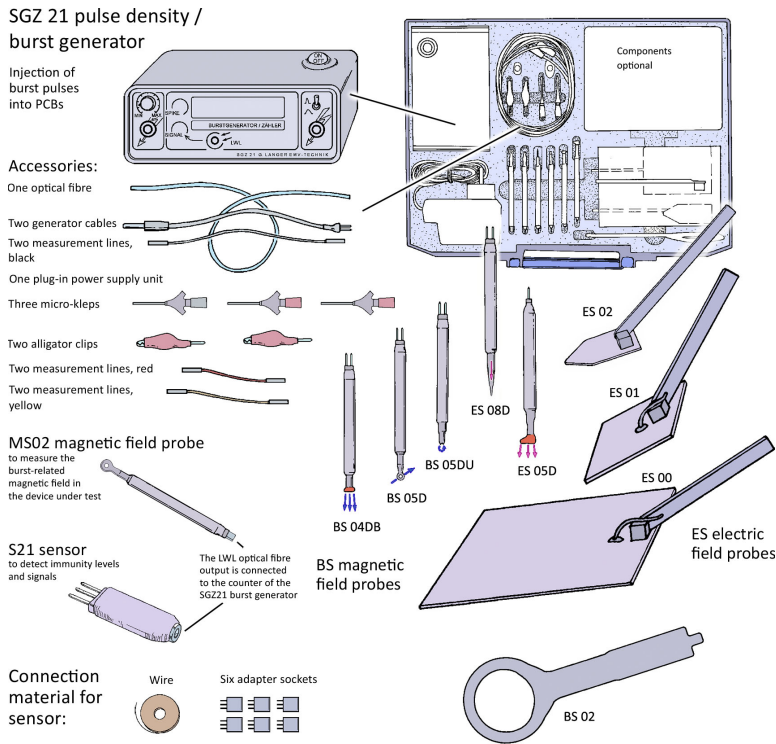
Application with BS 04 DB



Scope of delivery E1



Exploded view drawing E1



Application with MSA 02 magnetic field probe from the S2 set

