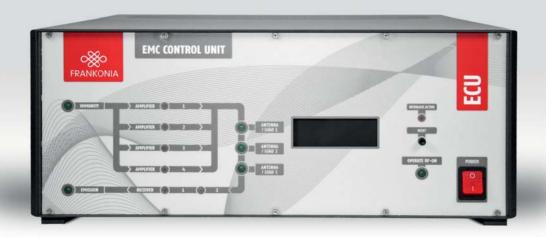
### **EMC TEST AND CONTROL UNIT - ECU-3/-6**



ALL-IN-ONE UNIT: ECU-3 / -6

### **Description**

The ECU-3/-6 is a central EMC test and control unit, which combines in just one compact box many major test components like signal generator, power meter, directional couplers and relay switching unit, which are needed for EMC tests. That reduces the cabling work and possible cabling mistakes to a minimum. Furthermore it includes general functions like EUT-monitoring and an interlock safety-system. With all the functions described above, the ECU-3/-6 is a real all-rounder, which can be used for many different conducted and radiated immunity tests as well as control unit to switch between EMI-receiver and spectrum analyzer and different measuring antennas without time consuming cabling work. It allows to control and to switch automatically between up to four external amplifiers, all connected to the ECU-3/-6 and up to three different outputs for antennas or coupling devices (CDNs, EM-coupling clamp, BCI-clamps). The integrated signal generator is available to cover the frequency range from 9 kHz to 3 GHz or from 9 kHz to 6 GHz. Amplitude modulation is available with a modulation rate of 1 Hz to 30 kHz and a modulation depth of 0 % to 90 %. Pulse modulation can be switched on with a repetition frequency of 0.1 Hz to 100 kHz and a duty cycle of 1 % - 99 %. In a word, it includes all requirements according to present EMC standards and it is best prepared for possible future changes.

#### Special Features:

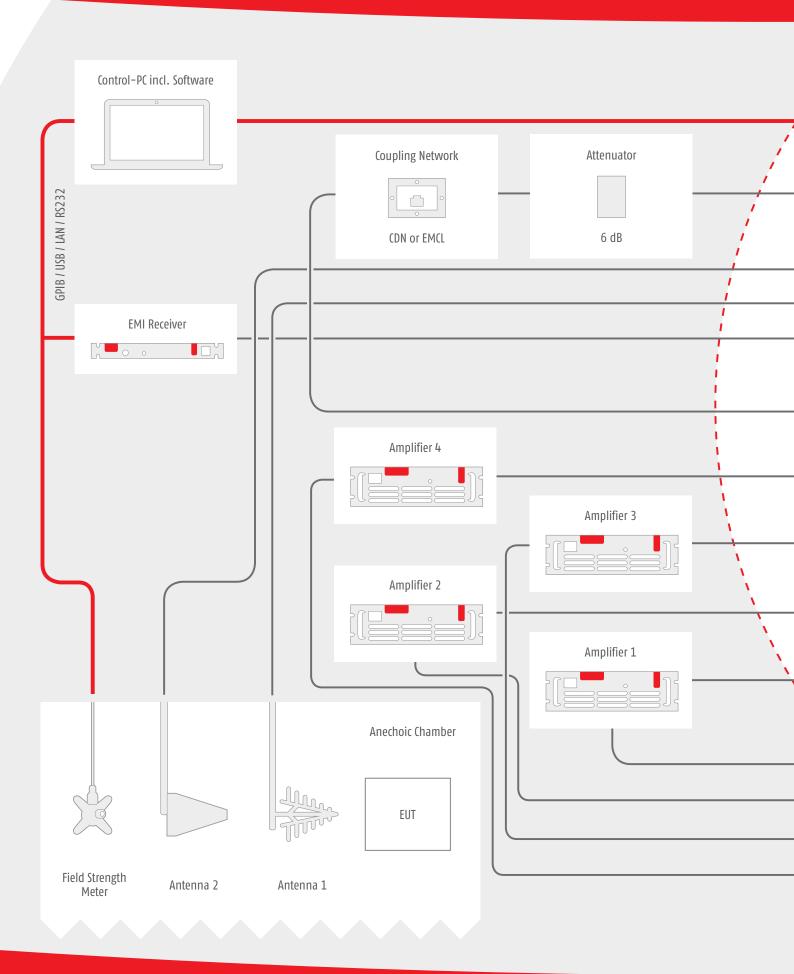
- Conducted immunity tests according to IEC/EN 61000-4-6, 10 kHz - 230 MHz
- BCI-tests according to ISO 11452-4 and MIL-STD 461, CS 114
- Radiated immunity tests according to: IEC/EN 61000-4-3, ISO 11452-2/3/4/5, MIL-STD 461, RS 103
- Automatic switching between up to four external power amplifiers and connected coupling units / antennas
- Automatic switching between up to two EMI-receivers, spectrum analyzers and three different antennas
- Easy integration into any control software by dll-driver
- · Integrated interlock safety system

Technical specifications	ECU-3	ECU-6
Signal Generator		
Output	50 $Ω$ , N male	
Output (Relay)	3 x N male	4 x N male
Frequency range	9 kHz to 3 GHz	9 kHz to 6.5 GHz
Frequency resolution	0.1 Hz	0.001 Hz
Output level range	-65 dBm to +10 dBm	-100 dBm to +13 dBm
Output level resolution	0.1 dB	
Output level accuracy	±1 dB max.	
Accuracy (frequency)	±25 ppm	±100 ppb
Harmonics	< -30 dBc	
Non harmonics	< -55 dBc	
Amplitude modulation		
Modulation rate	1 Hz to 30 kHz; resolution 0.02 Hz	1 Hz to 20 kHz; resolution 0.1 Hz
Modulation depth	0 to 90 %; resolution 1 %	0 to 90 %; resolution 1 %
Modulation waveforms	sinusoidal, triangular, square	sinusoidal, triangular, square

# **EMC TEST AND CONTROL UNIT - ECU-3/-6**

Pulse modulation           On/off ratio         >50dB         typ. 80 dB           Repetition frequency         0.1 Hz to 100 kHz         0.1 Hz to 100 kHz           Duty cycle         1%-99%; resolution1%         1%-99%; resolution1%           Frequency modulation           Modulation rate          300 Hz to 300 kHz           RF-Power Meter           Number of channels         7         9           10 kHz - 500 MHz (channel 1,2,9)         100 kHz - 6 GHz (channel 1,2,9)           100 kHz - 6 GHz (channel 3,4,5,6)         (channel 3,4,5,6,7,8)           Measuring range         -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)           Accuracy         ±1 dB (0.5 dB typical)           Resolution         0.1 dB           Max. input level         +27 dBm (= 500 mW)           VSWR         1.15           EUT-fail input         2 x TIL/CMOS compatible           Input resistance         2.2 kΩ           Level         TIL / CMos compatible, optical decoupled           EUT-monitor input         EUT-monitor input           Input voltage (2 x)         0 - 10 V           Resolution         2.5 mV           Input impedance         100 kΩ           USB-B         Connection to compu	Technical specifications	ECU-3	ECU-6
On/off ratio         >50dB         typ. 80 dB           Repetition frequency         0.1 Hz to 100 kHz         0.1 Hz to 100 kHz           Duty cycle         1%-99%; resolution1%         1%-99%; resolution1%           Frequency modulation          300 Hz to 300 kHz           RF-Power Meter         Number of channels         7         9           Number of channels         7         9           10 kHz - 500 MHz (channel 1,2,7)         (channel 1,2,9)         100 kHz - 6 GHz (channel 3,4,5,6)         (channel 1,2,9)           Measuring range         -60 dBm to +20 dBm (10 kHz ≤ f ≤ 6 GHz)         -60 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)           Accuracy         ±1 dB (0.5 dB typical)         4 GHz < f ≤ 6 GHz)           Accuracy         ±1 dB (0.5 dB typical)         4 GHz < f ≤ 6 GHz)           Max. input level         +27 dBm f ≤ 500 mW)           SWR         1.15         5 GW            EUT-fail input         2 x TUL/CMOS compatible         2 potical decoupled           EUT-fail input         2 x TUL/CMOS compatible         3 potical decoupled           FUT-moiltor input         3 potical decoupled         4 potical decoupled           EUT-fail input impedance         10 k2         k2           USB-A         Multimeter (for EUT control)         Ke     <			
Duty cycle   1%-99%; resolution 1%   1%-99%; resolution 1%		>50dB	typ. 80 dB
Frequency modulation         Amodulation rate          300 Hz to 300 kHz           RF-Power Meter         7         9           In kHz - 500 MHz (channel 1,2,7) (channel 1,2,9) (channel 1,2,9) (channel 3,4,5,6) (channel 3,4,5,6) (channel 3,4,5,6,7,8)         100 kHz - 6 GHz (channel 3,4,5,6) (channel 3,4,5,6,7,8)           Measuring range         -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz) (channel 3,4,5,6,7,8)           Accuracy         ±1 dB (0.5 dB typical)           Resolution         0.1 dB           Max. input level         +27 dBm (= 500 mW)           YSWR         1.15           EUT-fail input         2 x TTL/CMOS compatible           Input resistance         2.2 kΩ           Level         TTL / CMos compatible, optical decoupled           EUT-monitor input         1nput voltage (2 x)           Input voltage (2 x)         0 - 10 V           Resolution         2.5 mV           Input voltage (2 x)         0 - 10 V           Resolution         2.5 mV           Input repedance         100 kΩ           USB-A         Multimeter (for EUT control)           Remote control         USB-B           Connection to computer           GPIB / IEEE488         Connection to computer           Ethernet / RJ45         option      <	Repetition frequency	0.1 Hz to 100 kHz	0.1 Hz to 100 kHz
Modulation rate          300 Hz to 300 kHz           RF-Power Meter           Number of channels         7         9           Frequency Range         10 kHz - 500 MHz (channel 1,2,7) (channel 1,2,9) (100 kHz - 6 GHz (channel 3,4,5,6) (channel 3,4,5,6,7,8)           Measuring range         -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz) (channel 3,4,5,6,7,8)           Accuracy         ±1 dB (0.5 dB typical)           Resolution         0.1 dB           Max. input level         +27 dBm (= 500 mW)           YSWR         1.15           EUT-fail input         2 x TTL/CMOS compatible           Input resistance         2.2 kΩ           Level         TTL / CMos compatible, optical decoupled           EUT-monitor input         1.15           Input voltage (2 x)         0 - 10 V           Resolution         2.5 mV           Input impedance         100 kΩ           USB-A         Multimeter (for EUT control)           Remote control         USB-B           USB-B         Connection to computer           GPIB / IEEE488         Connection to computer           Ethernet / RJ45         option           Displaye         Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)           RF-Relay Switching Unit	Duty cycle	1%-99%; resolution1%	1%-99%; resolution1%
RF-Power Meter         Number of channels         7         9           10 kHz - 500 MHz (channel 1,2,7)         10 kHz - 500 MHz (channel 1,2,9)         100 kHz - 6 GHz (channel 3,4,5,6)           Measuring range         -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)         -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)	Frequency modulation		
Number of channels   7   9   10 kHz - 500 MHz   10 kHz - 500 MHz   (channel 1,2,7)   (channel 1,2,9)   100 kHz - 6 GHz   (channel 3,4,5,6)   (channel 3,4,5,6,7,8)   -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)   -45 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (5 GB typical)   -10 dBm   -45 dBm to +20 dBm (5 GB typical)   -10 dBm   -45 dBm to +20 dBm (5 GB typical)   -10 dBm   -45 dBm to +20 dBm (5 GB typical)   -10 dBm   -45 dBm to +20 dBm (5 GB typical)   -10 dBm   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)   -45 dBm to +20			300 Hz to 300 kHz
10 kHz - 500 MHz	RF-Power Meter		
Frequency Range         (channel 1,2,7)         (channel 1,2,9)           100 kHz − 6 GHz         100 kHz − 6 GHz           (channel 3,4,5,6)         (channel 3,4,5,6,7,8)           −60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)         −45 dBm to +20 dBm (4 GHz ≤ f ≤ 6 GHz)           Accuracy         ±1 dB (0.5 dB typical)           Resolution         0.1 dB           Max. input level         +27 dBm (= 500 mW)           YSWR         1.15           EUT-fail input         2 x TIL/CMOS compatible           Input resistance         2.2 kΩ           Level         TIL / CMos compatible, optical decoupled           EUT-monitor input         100 kΩ           Input voltage (2 x)         0 - 10 V           Resolution         2.5 mV           Input impedance         100 kΩ           USB-A         Multimeter (for EUT control)           Remote control         USB-B         Connection to computer           USB-B         Connection to computer           Ethernet / RJ45         option           Displayed items         Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)           RF-Relay Switching Unit         2000 W           max. power up to 1 GHz         700 W           max. power up to 6 GHz	Number of channels	7	9
100 kHz - 6 GHz		10 kHz - 500 MHz	10 kHz - 500 MHz
100 kH2 - 6 GH2	Fraguency Dange	(channel 1,2,7)	(channel 1,2,9)
Measuring range       -60 dBm to +20 dBm (10 kHz ≤ f ≤ 4 GHz)         -45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)	riequelity kalige	100 kHz - 6 GHz	100 kHz - 6 GHz
Measuring range       −45 dBm to +20 dBm (4 GHz < f ≤ 6 GHz)		(channel 3,4,5,6)	(channel 3,4,5,6,7,8)
Accuracy  # 1 dB (0.5 dB typical)  Resolution  Max. input level  # 27 dBm (= 500 mW)  # 27 dBm (= 500 mW)  # 28 x TIL/CMOS compatible  # 1.15  # 2 x TIL/CMOS compatible  # 2.2 kΩ  # 2 compatible, optical decoupled  # 2.5 mV  # 3 compatible optical decoupled  # 4 compatible optical decoupled  # 5 compatible optical decoupled  # 6 compatible optical decoupled  # 7 compatible	Moacuring rango	-60 dBm to +20 dBm (10 kHz $\leq$ f $\leq$ 4 GHz)	
Resolution  Max. input level  +27 dBm (= 500 mW)  VSWR  1.15  EUT-fail input  Input resistance  Level  TTL / CMos compatible, optical decoupled  EUT-monitor input  Input voltage (2 x)  Resolution  1.00 kΩ  USB-A  Multimeter (for EUT control)  Remote control  USB-B  Connection to computer  GPIB / IEEE488  Connection to computer  Ethernet / RJ45  option  Display  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  19"-Subrack or desktop case  Dimensions(WXHxD)  Weight  AV TTL/CMOS compatible  2.2 kΩ  TTL / CMos compatible  2.2 kΩ  Conpetion to computer  Connection to computer  General data  100 kΩ  1	measuring range	-45 dBm to $+20$ dBm (4 GHz < f ≤ 6 GHz)	
Max. input level       +27 dBm (= 500 mW)         VSWR       1.15         EUT-fail input       2 x TTL/CMOS compatible         Input resistance       2.2 kΩ         Level       TTL / CMos compatible, optical decoupled         EUT-monitor input       Input voltage (2 x)         Resolution       2.5 mV         Input impedance       100 kΩ         USB-A       Multimeter (for EUT control)         Remote control       USB-B       Connection to computer         GPIB / IEEE488       Connection to computer         Ethernet / RJ45       option         Display         Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)         RF-Relay Switching Unit max. power up to 100 MHz       2000 W         max. power up to 60Mz       1000 W         max. power up to 3 GHz       400 W         max. power up to 6 GHz       300 W         General data         Temperature range       0 to 40°C         Warm-up time       15 min.         Housing       19"-Subrack or desktop case         Dimensions(WXHXD)       449 mm x 177 mm x 580 m         Weight	Accuracy	±1 dB (0.5 dB typical)	
VSWR 1.15 EUT-fail input 2 x TTL/CMOS compatible Input resistance 2.2 kΩ Level TTL / CMos compatible, optical decoupled EUT-monitor input Input voltage (2 x) 0 - 10 V Resolution 2.5 mV Input impedance 100 kΩ USB-A Multimeter (for EUT control) Remote control USB-B Connection to computer GPIB / IEEE488 Connection to computer Ethernet / RJ45 option Display  Display  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit max. power up to 100 MHz 2000 W max. power up to 1 GHz 700 W max. power up to 3 GHz 400 W max. power up to 6 GHz 300 W  General data  Temperature range 0 to 40°C Warm-up time 15 min. Housing 19"-Subrack or desktop case Dimensions(WxHxD) 449 mm x 177 mm x 580 m Weight	Resolution	0.1 dB	
EUT-fail input  Input resistance  Level  TTL / CMos compatible, optical decoupled  EUT-monitor input  Input voltage (2 x)  Resolution  100 kΩ  USB-A  Multimeter (for EUT control)  Remote control  USB-B  Connection to computer  GPIB / IEEE488  Connection to computer  Ethernet / RJ45  Display  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 6 GHz  Too W  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight	Max. input level	+27 dBm (= 500 mW)	
Input resistance Level TTL / CMos compatible, optical decoupled  EUT-monitor input  Input voltage (2 x) 0 - 10 V  Resolution 2.5 mV  Input impedance 100 kΩ  USB-A Multimeter (for EUT control)  Remote control  USB-B Connection to computer  GPIB / IEEE488 Connection to computer  Ethernet / RJ45 option  Display  Display  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz 2000 W  max. power up to 600 MHz 1000 W  max. power up to 1 GHz 700 W  max. power up to 3 GHz 400 W  max. power up to 6 GHz 300 W  General data  Temperature range 0 to 40°C  Warm-up time 15 min.  Housing 19"-Subrack or desktop case  Dimensions(WxHxD) 449 mm x 177 mm x 580 m  Weight	VSWR	1.15	
Level     TTL / CMos compatible, optical decoupled       EUT-monitor input       Input voltage (2 x)     0 - 10 V       Resolution     2.5 mV       Input impedance     100 kΩ       USB-A     Multimeter (for EUT control)       Remote control       USB-B     Connection to computer       GPIB / IEEE488     Connection to computer       Ethernet / RJ45     option       Display       Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)       RF-Relay Switching Unit       max. power up to 100 MHz     2000 W       max. power up to 600 MHz     1000 W       max. power up to 3 GHz     400 W       max. power up to 6 GHz     300 W       General data       Temperature range     0 to 40°C       Warm-up time     15 min.       Housing     19"-Subrack or desktop case       Dimensions(WxHxD)     449 mm x 177 mm x 580 m       Weight     approx. 18 kg	·	2 x TTL/CMOS compatible	
EUT-monitor input  Input voltage (2 x)  Resolution  100 kΩ  USB-A  Multimeter (for EUT control)  Remote control  USB-B  Connection to computer  GPIB / IEEE488  Ethernet / RJ45  option  Display  Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  day  max. power up to 6 GHz  max. power up to 6 GHz  max. power up to 6 GHz  frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 1 GHz  max. power up to 6 GHz  frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  for a day  for a	Input resistance	2.2 kΩ	
Input voltage (2 x)  Resolution  2.5 mV  Input impedance  100 kΩ  USB-A  Multimeter (for EUT control)  Remote control  USB-B  Connection to computer  GPIB / IEEE488  Connection to computer  Option  Display  Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  O to 40°C  Warm-up time  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight	20101	TTL / CMos compatible, optical decoupled	
Resolution2.5 mVInput impedance100 kΩUSB-AMultimeter (for EUT control)Remote controlUSB-BConnection to computerGPIB / IEEE488Connection to computerEthernet / RJ45optionDisplayFrequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)RF-Relay Switching Unitmax. power up to 100 MHz2000 Wmax. power up to 600 MHz1000 Wmax. power up to 1 GHz700 Wmax. power up to 3 GHz400 Wmax. power up to 6 GHz300 WGeneral dataTemperature range0 to 40°CWarm-up time15 min.Housing19"-Subrack or desktop caseDimensions(WxHxD)449 mm x 177 mm x 580 mWeightapprox. 18 kg			
Input impedance  USB-A  Multimeter (for EUT control)  Remote control  USB-B  Gonnection to computer  GPIB / IEEE488  Ethernet / RJ45  Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  O to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight			
USB-A  Remote control  USB-B  Connection to computer  GPIB / IEEE488  Ethernet / RJ45  Display  Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  O to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight			
Remote control  USB-B Connection to computer  GPIB / IEEE488 Connection to computer  Ethernet / RJ45 option  Display  Display  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz 2000 W  max. power up to 600 MHz 1000 W  max. power up to 1 GHz 700 W  max. power up to 3 GHz 400 W  max. power up to 6 GHz 300 W  General data  Temperature range 0 to 40°C  Warm-up time 15 min.  Housing 19"-Subrack or desktop case  Dimensions(WxHxD) 449 mm x 177 mm x 580 m  Weight			
USB-B GPIB / IEEE488 Connection to computer Ethernet / RJ45 Display  Display  Displayed items Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit max. power up to 100 MHz max. power up to 600 MHz max. power up to 1 GHz max. power up to 3 GHz max. power up to 6 GHz Too W max. power up to 6 GHz Temperature range O to 40°C Warm-up time Housing 19"-Subrack or desktop case Dimensions(WxHxD) 449 mm x 177 mm x 580 m Weight		Multimeter (for EUT control)	
GPIB / IEEE488 Ethernet / RJ45 Display Display Displayed items Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit max. power up to 100 MHz max. power up to 600 MHz max. power up to 1 GHz max. power up to 1 GHz max. power up to 3 GHz max. power up to 6 GHz  Too W max. power up to 6 GHz Too W max. power up to 6 GHz Too W max. power up to 6 GHz Temperature range			
Ethernet / RJ45 option  Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight		-	
Display  Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  O to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight		•	
Displayed items  Frequency, Power levels P(forw), P(rev), modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight		ОР	tion
Displayed items  modulation (4 lines x 16 characters)  RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight	DISPIRA	Fraguency Dower L	avals D(form) D(ray)
RF-Relay Switching Unit  max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  300 W  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight	Displayed items		
max. power up to 100 MHz  max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 6 GHz  300 W  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight	RF-Relay Switching Unit	modulation (1 m)	ies X 10 characters,
max. power up to 600 MHz  max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 3 GHz  max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight		2000 W	
max. power up to 1 GHz  max. power up to 3 GHz  max. power up to 3 GHz  400 W  max. power up to 6 GHz  300 W  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight  approx. 18 kg			
max. power up to 3 GHz max. power up to 6 GHz  General data  Temperature range 0 to 40°C  Warm-up time 15 min.  Housing 19"-Subrack or desktop case  Dimensions(WxHxD) 449 mm x 177 mm x 580 m  Weight approx. 18 kg			
max. power up to 6 GHz  General data  Temperature range  0 to 40°C  Warm-up time  15 min.  Housing  19"-Subrack or desktop case  Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight  approx. 18 kg			
General data  Temperature range 0 to 40°C  Warm-up time 15 min.  Housing 19"-Subrack or desktop case  Dimensions(WxHxD) 449 mm x 177 mm x 580 m  Weight approx. 18 kg			
Warm-up time 15 min. Housing 19"-Subrack or desktop case Dimensions(WxHxD) 449 mm x 177 mm x 580 m Weight approx. 18 kg	General data		
Housing 19"-Subrack or desktop case Dimensions(WxHxD) 449 mm x 177 mm x 580 m Weight approx. 18 kg	Temperature range	0 to	40°C
Dimensions(WxHxD)  449 mm x 177 mm x 580 m  Weight approx. 18 kg	Warm-up time	15 min.	
Weight approx. 18 kg	Housing	19"-Subrack or desktop case	
	Dimensions(WxHxD)	449 mm x 177 mm x 580 m	
AC input 100 - 240 VAC, 50 / 60 Hz	Weight		
	AC input	100 - 240 V	AC, 50 / 60 Hz

Part Numbers		
ECIL 3	Compact EMC control unit,	
ECU-3	basic Instrument, 9 kHz - 3 GHz	
ECU-6	Compact EMC control unit, basic Instrument, 9 kHz – 6 GHz	
ECU-DC1A	Directional Coupler, 10 kHz -250 MHz, 30 dB, 100 W	
ECU-DC1B	Directional Coupler, 10 kHz – 400 MHz, 30 dB, 100 W	
ECU-DC1C	Directional Coupler, 10 kHz – 250 W, 30 dB, 500 W	
ECU-DC2	Directional Coupler, 80 MHz – 1000 MHz, 50dB, 1500 W	
ECU-DC3	Directional Coupler, 1 GHz– 4 GHz, 40 dB, 600 W	
ECU-DC4	Directional Coupler, 2 GHz – 8 GHz, 40 dB, 600 W	
ECU-KS2	Cable-set and GPIB-interface for immunity test systems with 2 amplifiers	
ECU-KS3	Cable-set and GPIB-interface for immunity test systems with 3 amplifiers	
ECU-KS4	Cable-set and GPIB-interface for immunity test systems with 4 amplifiers	
ECU-LAN	Additional interface: LAN	
ECU-OUT2	Switching between 2 outputs (antenna/load)	
ECU-OUT3	Switching between 3 outputs (antenna/load)	
ECU-PM1	RF-Power Meter / RF-milli-voltmeter, 10 kHz - 500 MHz, 1 channel	
ECU-PM2	RF-Power Meter / RF-milli-voltmeter, 100 kHz - 6 GHz, 1 channel	
ECU-REC1	Switching to emission path and connection of 1 measuring receiver / spectrum analyzer	
ECU-REC2	Switching to emission path and connection of 2 measuring receivers <i>I</i> spectrum analyzers	
ECU-RI	19"-Rack version	
ECU-SW6	Standard software for testing acc. to IEC/EN 61000-4-6 in a system with ECU-3/-6	



## EMC TEST AND CONTROL UNIT - ECU-3/-6

EXAMPLE OF A TEST SYSTEM SETUP WITH ECU-3/-6

