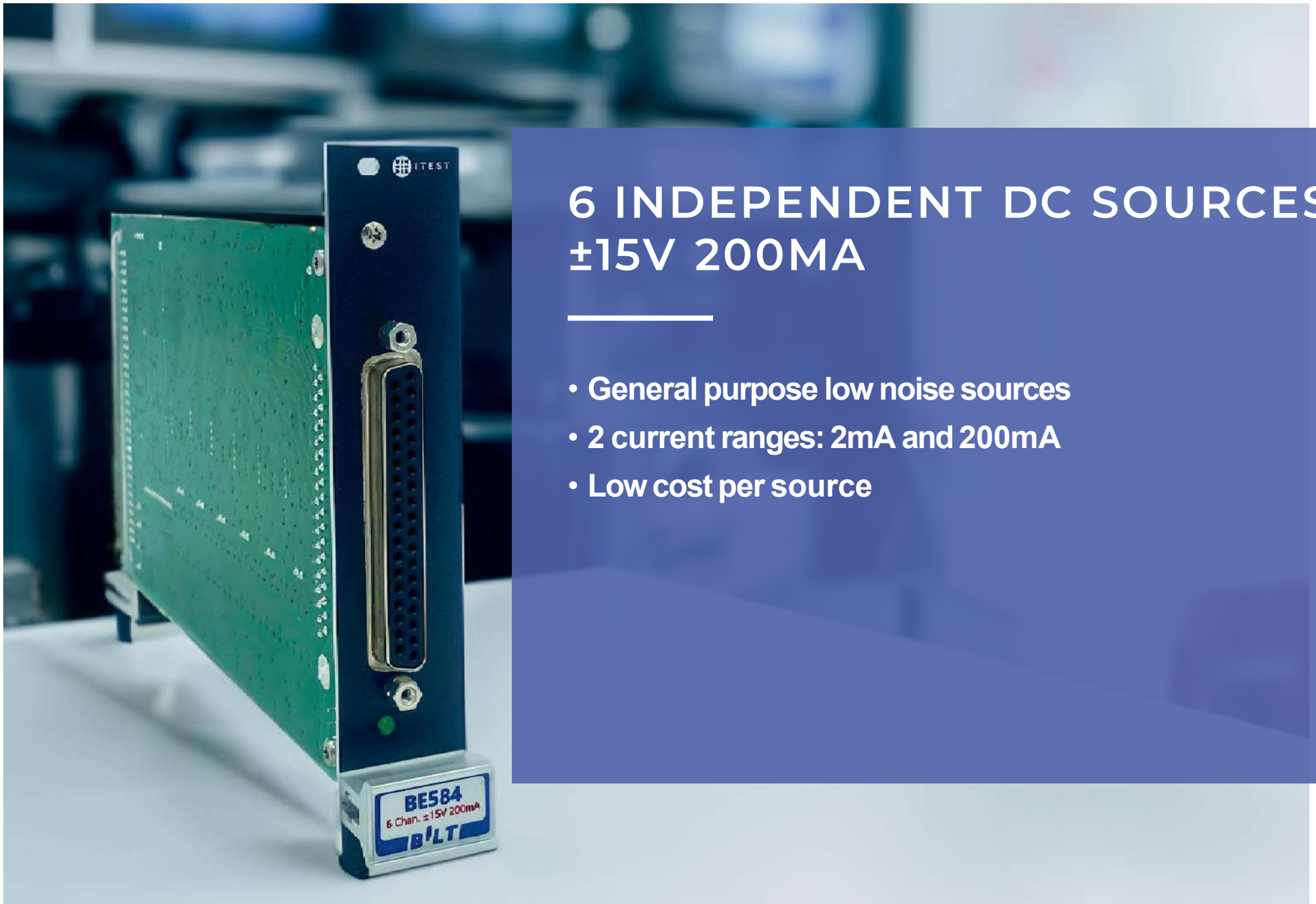


Bilt System module **BE584**

Voltage Source: $\pm 15\text{V}$ 200mA/
2mA, 6 channels



6 INDEPENDENT DC SOURCES $\pm 15\text{V}$ 200mA

- General purpose low noise sources
- 2 current ranges: 2mA and 200mA
- Low cost per source

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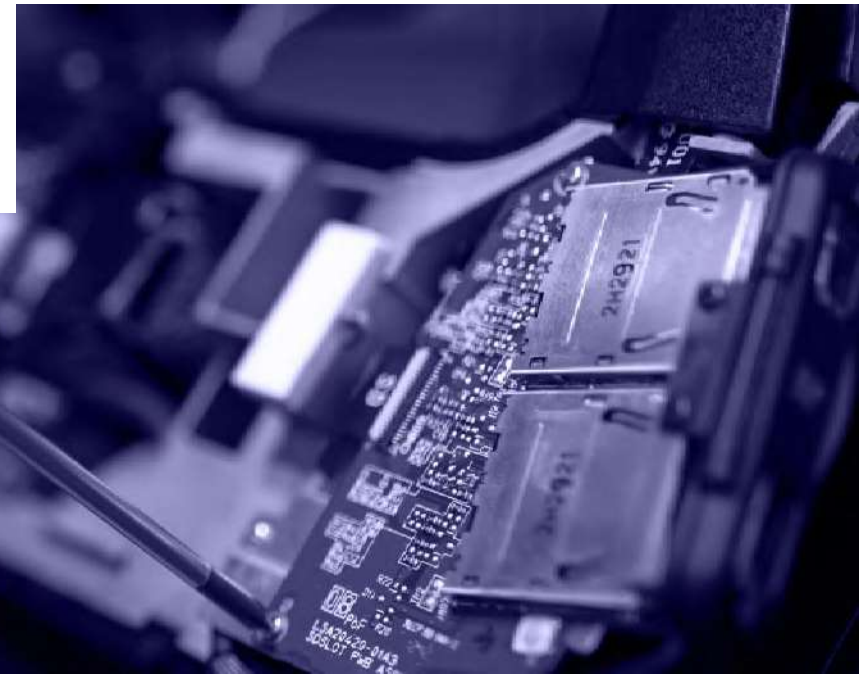
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APPLICATION EXAMPLES

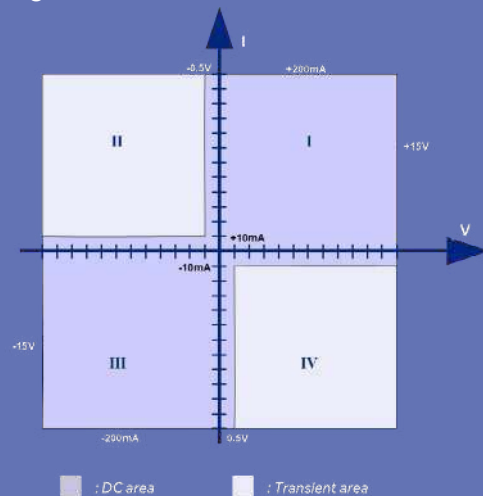
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BE584 OVERVIEW

MAIN FEATURES

- 6 independent ground referenced DC sources
- 4-quadrant voltage source with current compliance limit
- 4-wire operation (sense)
- Low noise linear regulation
- 1 bipolar voltage range: $\pm 15V$
- 2 current ranges: 2mA and 200mA
- 16-bit measurement and setting resolution
- Accuracy: 0,1% of the range
- Up to 84 sources in a single 14-slot BiLT chassis
- Operating area :



- Available accessory: D-SUB to BNC adapter, 1.5-meter (5 ft), Reference AT211-1.5



Technical SPECIFICATIONS

Operating Area

Parameters	Conditions/Comments	Min.	Max.
Voltage setting range	Bipolar operation: continuous voltage setting between polarities, normal operation around 0V	-15V	+15V
Current setting range	% of the range, programmed in absolute value	0,5%	100%
Remote sense operating range	Max. voltage drop in the ground cable when sense connected	-1V	+1V
Voltage output headroom	Max module output voltage for sense compensation	-15V	+16V
Sourced output power	Continuous power, per source		3W
Continuous sink current	Quadrant II and IV, output voltage > 0,5V		10mA
Transient sink current	Quadrant II and IV, during less than 100ms		200mA
Operating temperature	Ambiant temperature in front of Bit's rear fan openings	15°C	30°C

Range and accuracy

Range switching while the source is off. Automatic range selection capability.

Accuracy specified on an 18°C-28°C ambient temperature range, 2-year, 15min warm-up.

Voltage

Range	Resolution	Accuracy ⁽¹⁾⁽²⁾		Ripple & Noise
		Setting	Read-back	10Hz-20Mhz
+15V	0,57mV	+15mV	+7mV	1mVp-p no load, 5mVp-p full load

(1) sense signals connected. If not, additional error: 15mV+0,1% of reading or setting (2) typical 90 day setting and measurement accuracy: 0,05% of the range

Current

Range	Resolution	Accuracy ⁽¹⁾		Load capacitance	
		Setting	Read-back	Recommended ⁽³⁾	Max ⁽³⁾
± 200mA	7,6µA	±400µA	±400µA	1µF	47µF
± 2mA	76nA	±4µA	±4µA	47nF	470nF

(1) Typical 90 day setting and measurement accuracy: 0,05% of range (2) for best noise and transient response results; low esr ceramic capacitor recommended (3) for regulation stability

Regulation/measurements

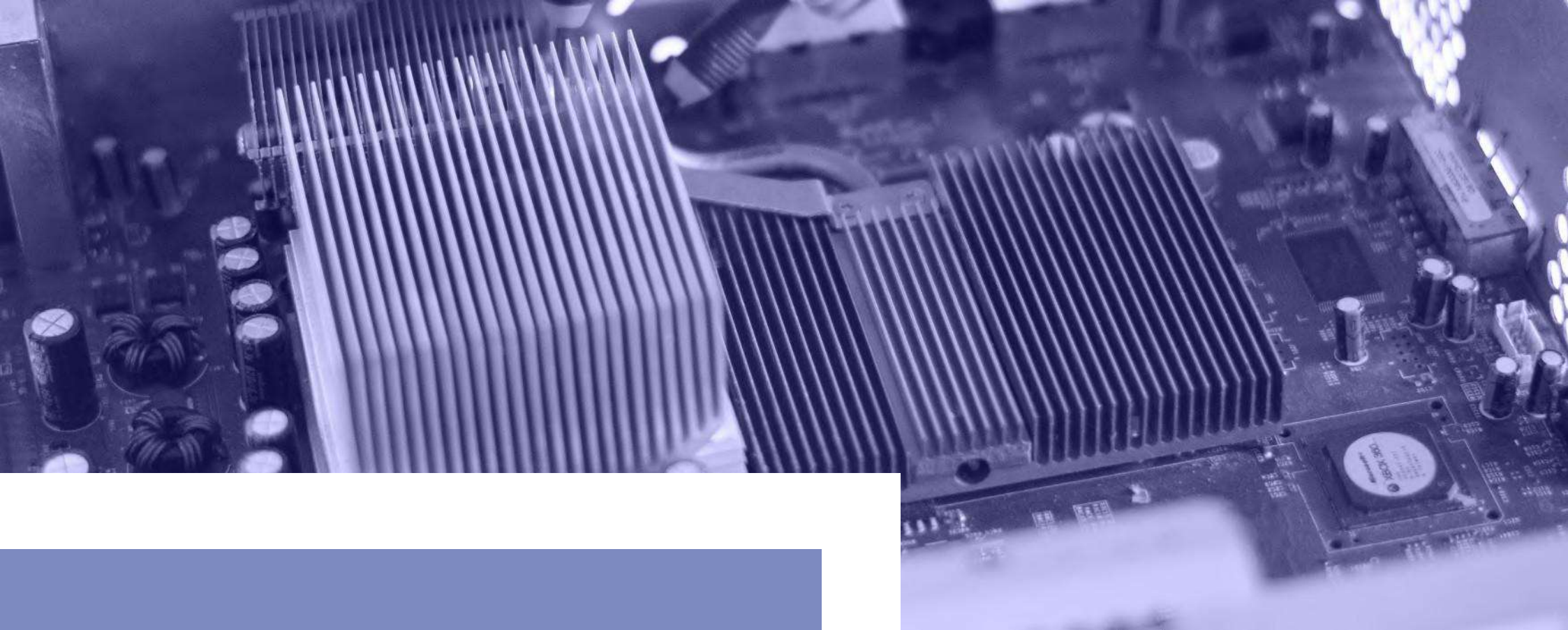
Parameters	Conditions/Comments	Min.	Typ.	Max.
Voltage transient response time ⁽¹⁾	1 μ F output decoupling capacitor		500 μ s	
Current transient response time	No output decoupling capacitor		100 μ s	
Voltage to current transient response time ⁽²⁾	No output decoupling capacitor		500 μ s	
Line regulation	No line regulation error, guaranteed by design			0%
Load regulation	Ground sense line connected, 0 to max. source current			0%
Measurements sampling frequency	For each source, envelope trace capability at this rate		0,33 ks/s	
Measurements bandwidth			4kHz	

(1) response time to a 5% to 50% load step, time to stabilize to within 15mV of setting **(2)** time to stabilize from a constant voltage (CV) regulation to a constant current (CC) regulation after a load step

Application **EXAMPLES**

- Reliability tests for sensitive components requiring multichannel biasing
- Accurate biasing for test and measurement benches
- Driver for voltage-controlled sources





BILT SYSTEM FEATURES

- Module to be inserted in a BiLT® chassis, 5 to 14-slot versions available, up to 1000W output power, no external bulk power supply needed
- Chassis standard interface: Ethernet and USB
- Complete software package provided, including a turnkey control PC software (Windows™ or Linux) and NI Labview® driver.
- Easy remote firmware update of modules and chassis control board

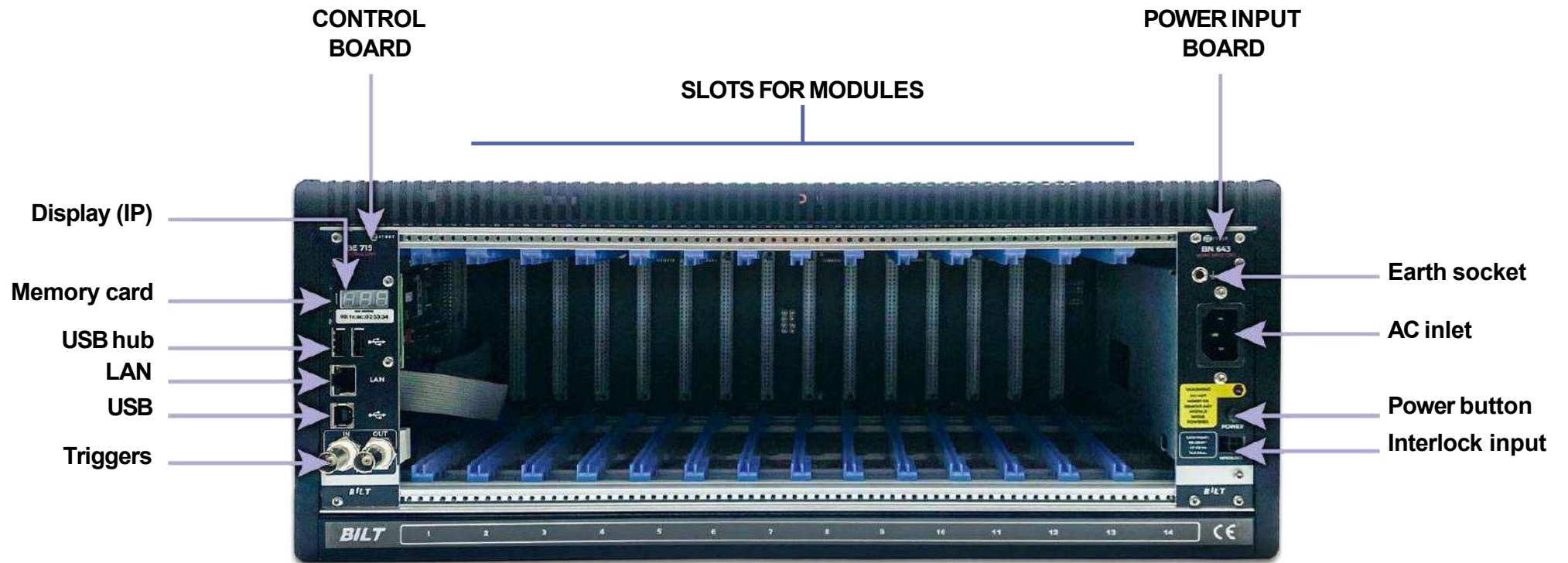


Front view of a 19" wide, 4U high BiLT chassis



The BiLT System

The best companion for the BE2800 module is the BN210 or BN220 BiLT chassis. This 19", 4U chassis is self-ventilated and offers 14 slots to insert modules, the maximum output power is up to 1000W.



Rear view

Standards, Calibration, Warranty and Maintenance

Bilt system is compliant with the applicable European Directives and holds the CE mark.

All ITEST products come with a two-year parts and labour warranty and a calibration certificate if applicable. An email or phone support service is also available for the same period.

Our calibration laboratory performs according to ISO/CEI 17025 “General requirements for the competence of testing and calibration laboratories”. All measurements are traceable to the International System of Unit.

The recommended calibration interval of instruments is one or two years, depending on instrument model.

On request, ITEST can proceed to scheduled calibration (in our workshop or at the customer’s site).



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