

Manual Supplement

Manual Title: QA-ES III Users
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This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1, 623, 229

On page 51, under **Technical Specification**, remove the **Bandwidth** and see it on page 52:

On page 52, replace the entire page with:

Duty Cycle

Variable Load 10 seconds on, 30 seconds off, at 100 W, all loads

Fixed 200 Ω Load 10 seconds on, 30 seconds off, at 400 W

Load Bank

Load Resistance

Variable 0 Ω, 10 Ω, 20 Ω, 25 Ω to 2500 Ω (by 25 Ω), 2500 Ω to 5200 Ω (by 100 Ω)

DC Accuracy..... ±2.5 %

Power Handling

At 25% duty cycle (10 seconds on,
30 seconds off) 10 Ω: 300 W,
20 Ω to 2900 Ω: 400 W,
3000 Ω to 5200 Ω: 200 W

At 10% duty cycle (5 seconds on,
45 seconds off) 10 Ω: 300 W,
20 Ω to 2400 Ω: 500 W,
2425 Ω to 2900 Ω: 400 W,
3000 Ω to 5200 Ω: 200 W

Table 1. System Bandwidth including Load Bank

Load Resistance Setting	Bandwidth (kHz) 5% Accuracy
10 – 25 Ω	1kHz – 400 kHz
50 – 125 Ω	1kHz – 3000 kHz
200 – 275 Ω	1kHz – 1800 kHz
400 – 500 Ω	1kHz – 1800 kHz
800 – 1400 Ω	1kHz – 1800 kHz
1650 – 2300 Ω	1kHz – 3000 kHz
2500 – 2900 Ω	1kHz – 3000 kHz
4200 – 4300 Ω	1kHz – 1800 kHz
4600 – 5100 Ω	1kHz – 1800 kHz
All other settings	1kHz – 1000 kHz

System Bandwidth3 MHz at -3 dB including loads (2 MHz for 10 Ω setting)

Power

Ranges0.0 W to 99.9 W
100 W to 500 W

Accuracy< 10 W: ±5 % + 1 W
≥10 W: ±5 %

Current

RMS0 mA to 5,500 mA

Accuracy±(2.5 % of reading + 1 mA)

Voltage

Peak 10 kV Peak to Peak
 Accuracy..... ±(10 % of reading + 50 V)

Crest Factor..... 1.4 to 16.0

Defined as the ratio of Peak voltage to RMS voltage (Vpk / Vrms), using the larger of the 2 peaks (positive or negative)

Vessel Sealing Measurement

Loop Current, RMS..... 0 mA to 5500 mA
 Accuracy ±(2.5 % of reading + 1 mA)

HF Current

Current, RMS..... 0 mA to 5500 mA
 Accuracy..... ±(2.5 % of reading + 1 mA)
 Bandwidth..... 1 kHz – 6.5 MHz, ± 5%
 1 kHz – 10 MHz, -3 dB

Change #2, 781, 248

On page 2, add the following to the **Symbols** table:

	Conforms to relevant South Korean EMC Standards.
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On page 51, under **Electromagnetic Compatibility (EMC)**, add:

Korea (KCC) Class A Equipment (Industrial Broadcasting & Communication Equipment)

Class A: Equipment meets requirements for industrial electromagnetic wave equipment and the seller or user should take notice of it. This equipment is intended for use in business environments and not to be used in homes.

Change #3, 18

On page 4, under ***Safety Information***, add these warnings:

- **The chassis ground of the ESU must be tied to the Ground Lug (Item 12 on Figure 1) of the QA-ES III using one of the safety leads, provided as a standard accessory, during all testing for ESUs with operating frequencies >1 MHz.**
- **The ESU and QA-ES III must be plugged in to the same power receptacle.**
- **Do not exceed 2-meter power leads for both the ESU and the QA-ES III.**
- **Avoid connecting the ESU and/or QA-ES III to power strips with long power leads or into tables fitted with outlets (that also have long power leads).**
- **Stay clear of the ESU, its leads, and the QA-ES III during powered operation and testing.**

