

RCFACUSTICA

COMPACT SERIES

C5215W



The C5215W is a full range extremely versatile wide-dispersion, two-way loudspeaker system offering substantial power and efficiency for a variety of professional applications that include permanent installations, primary sound reinforcement, plus portable systems and supplementary fill for larger systems. The high-frequency section is a constant directivity CMD horn designed mathematically for Constant Matching Design in relation to the woofer system, loaded to a 2" RCF Precision Neodymium compression driver with a 2.50" diaphragm assembly for smooth, wide dispersion. The low-frequency transducer is a 15" RCF Precision woofer with a 3" voice coil.

The system includes a high-level crossover network that features markedly lower (than conventional) induction values in series with the woofer. We call this innovation LICC (Low Impedance Compensated Crossover). The benefit is delay reduction, reduced phase shift and superior transient response. Dynamic high-frequency driver protection is accomplished with a new RCF exclusive - Active Mosfet Compression Driver Protection System, (AMCDP) chosen to complement the power curve of the driver. The C5215W's crossover is easily bypassed for bi-amp or tri-amp (with the S8018 Subwoofer) via a recessed changeover switch.

The C5215W is part of RCF's Acustica Compact Series, which includes two way constant directivity enclosures and high efficiency subwoofers in easily installed enclosures.

Applications

- Permanent Installations
- Main Reinforcement in small and medium spaces
- High-Level AV Playback
- Cluster configurations
- Live Music Reinforcement
- Large speech systems

Features

- Very high efficiency design
- One 15" high-output RCF Precision LF transducer with 3" voice coil
- One RCF Precision Neodymium 2" Compression Driver with 2.5" voice coil
- 90° x 40° CMD (Constant Matching Design) constant directivity horn
- Dual-function design: built in passive crossover or external bi-amp
- Rotatable Horn System for horizontal cabinet mounting applications
- Hexagonal enclosure for array and close wall/ceiling configurations
- HF driver AMCDP (Active Mosfet Compression Driver Protection)
- LICC (Low Impedance Compensated Crossover) network
- 19 mm birch plywood construction
- 9 Suspension points (M10)-
- 35mm standard internal pole mount
- Integrated hand-carry locations

SYSTEM

Freq. Range (-10 dB):	48Hz-20kHz
Freq. Range (-3 dB):	55Hz-20kHz
Horiz. coverage angle (-6 dB):	90°
Vertical coverage angle (-6 dB):	40°
Directivity factor; Q:	10,5
System sensitivity ¹ :	100dB, 1W @ 1m
Rated maximum SPL:	133dB, @ 1m
System Nominal Impedance:	8 Ω
System Input Power Rating RMS ² :	500W
System Input Power Rating PEAK ² :	2000W
Recommended Amplifier ³ :	1000W
HF Protection:	dynamic
Crossover:	1,2 kHz

TRANSDUCERS

Low Frequency:	15" (381 mm) woofet with 3" (76,2 mm) coil
Nominal Impedance:	8 Ω
Input power Rating:	400W AES ; 800W Peak
Sensitivity ¹ :	99 dB, 1W @ 1m
High Frequency:	2" (50 mm) throat, 2.5" (64 mm) coil diaphragm assembly
Nominal Impedance:	8 Ω
Input power Rating:	100W AES ; 200W Peak
Sensitivity ¹ :	111 dB, 1W @ 1m

PHYSICAL

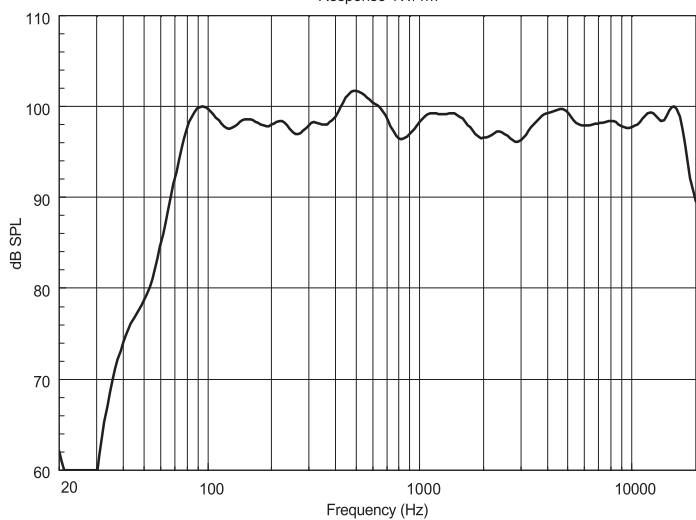
Enclosure:	Trapezoidal, 15° side angles 19 mm birch plywood construction
Rigging inserts:	9 x M10 inserts + pole mount
Color:	Black, scratch resistant paint
Grille:	Custom perforated steel grille with open-cell poly fiber backing
Input Connectors:	Speakon® NL4
Dimensions (H x W x D):	27.16"x16.06"x17.72" 690x408x450 mm
Weight:	66.13 lb - 30Kg

¹ Measured on axis in the far field with 1 watt (2.83V RMS, 8Ω) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300Hz to 3kHz.

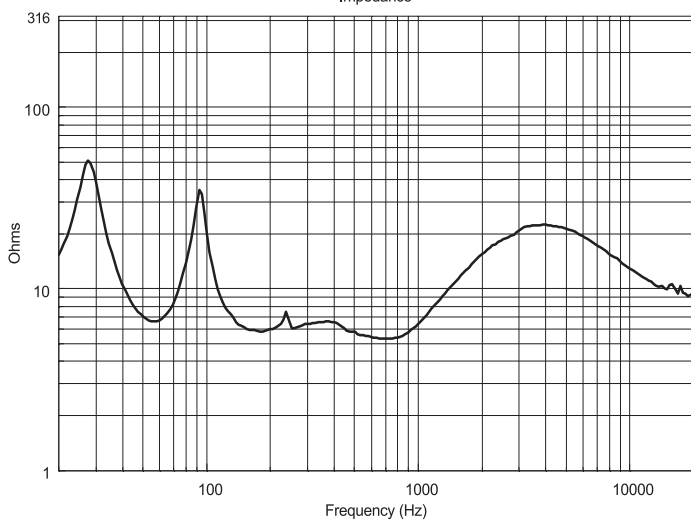
² RMS using 20Hz to 20kHz, PN Spectrum, Peak for 2 hours with +6 dB crest factor.

³ Recommended Amplifier is a power capability value that should be taken as a guide.

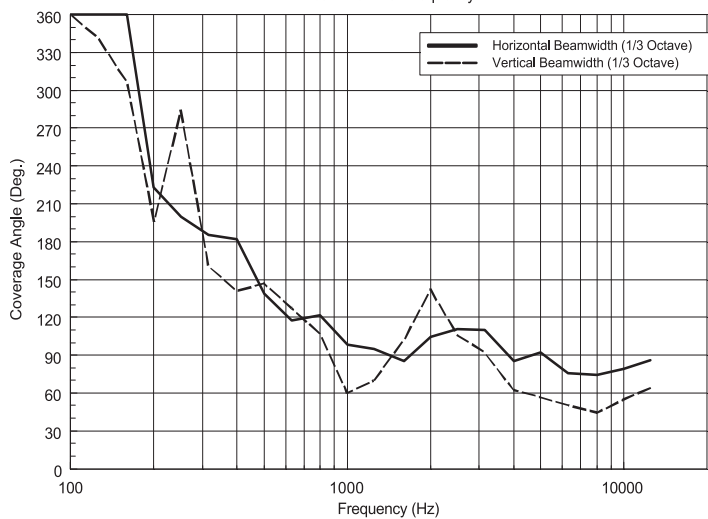
Response 1W/1m



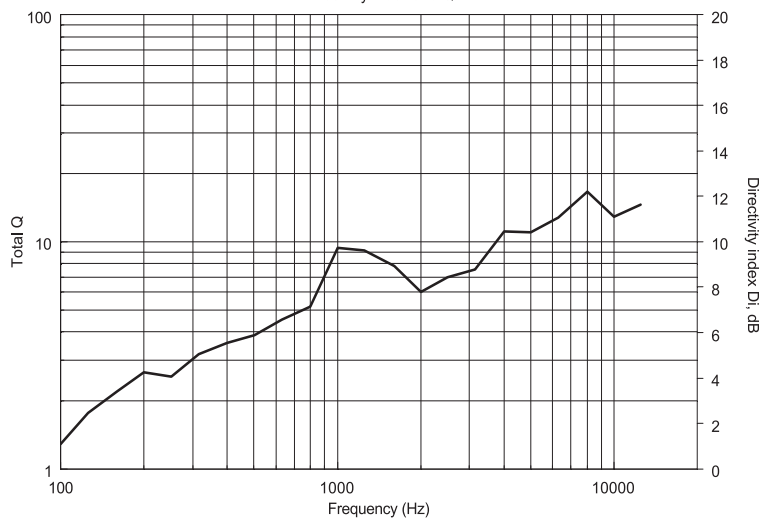
Impedance



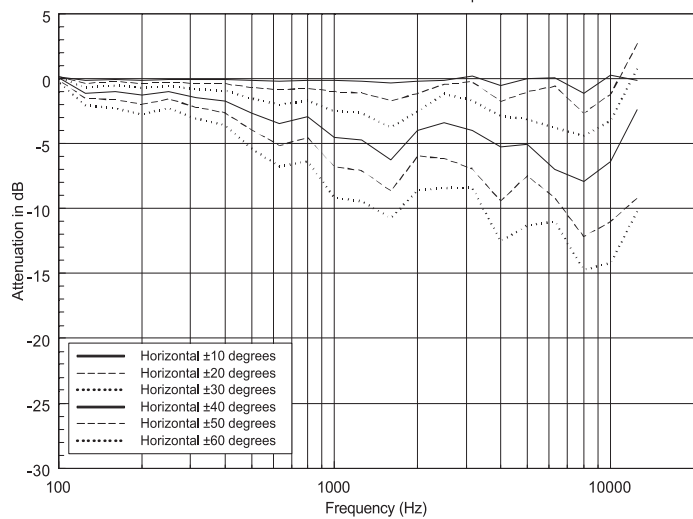
Beamwidth vs. Frequency



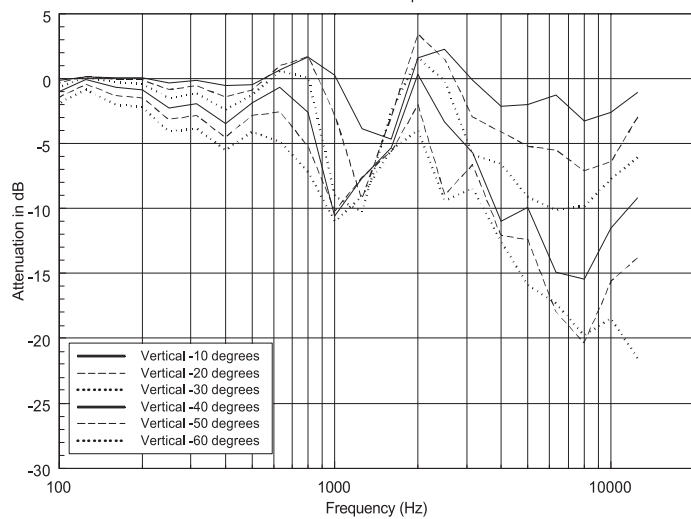
Directivity Index and Q



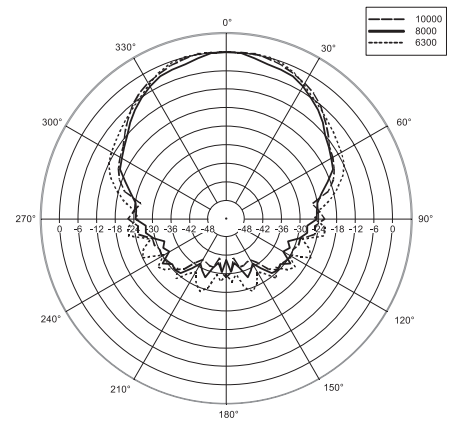
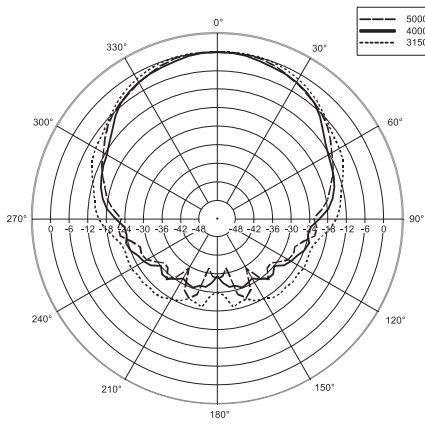
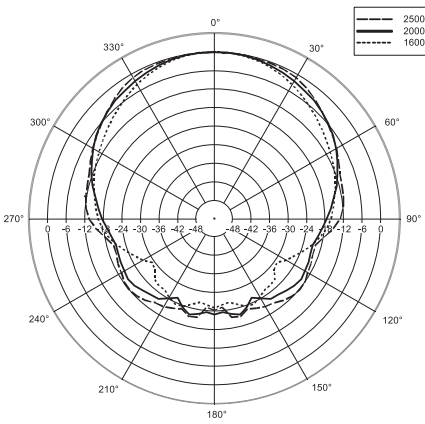
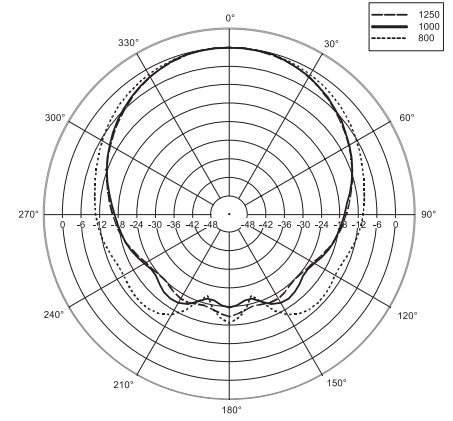
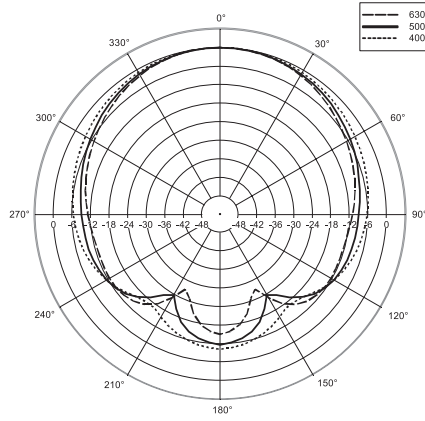
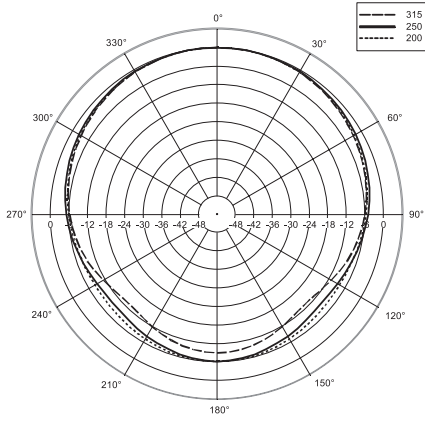
Normalized Horizontal off-axis Response



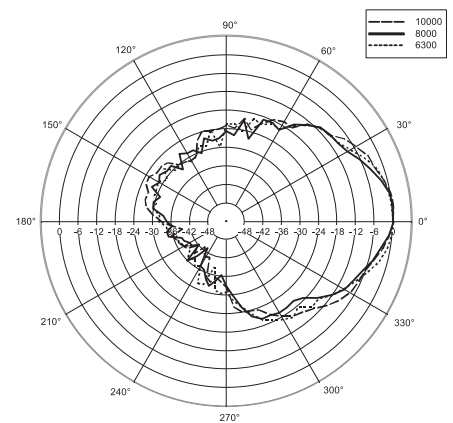
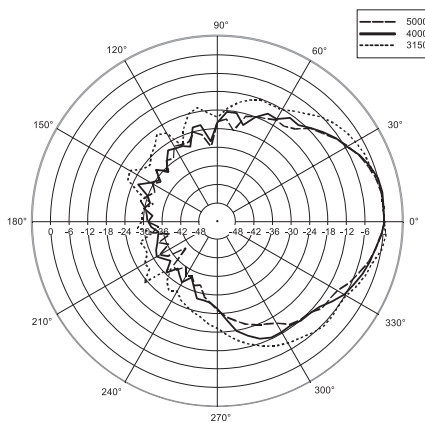
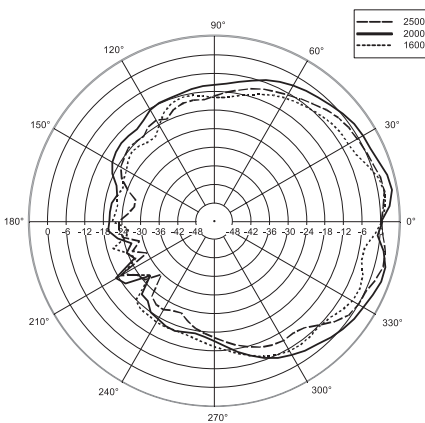
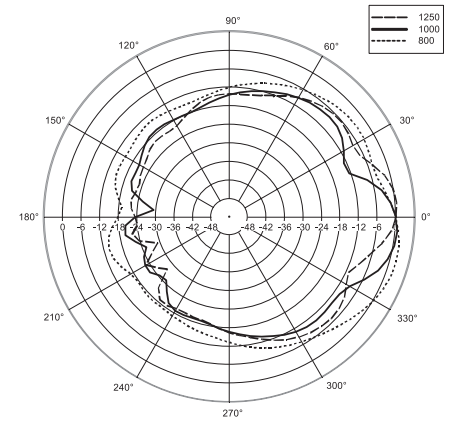
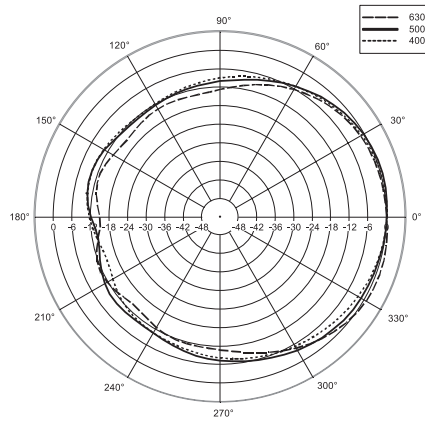
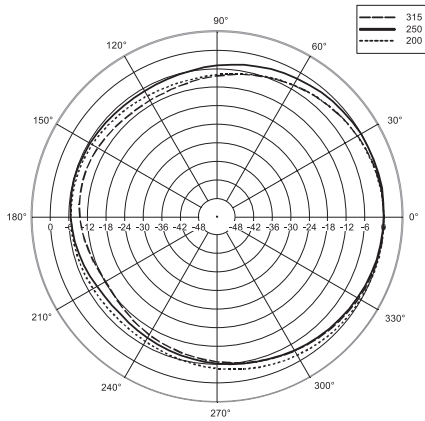
Normalized Vertical off-axis Response. Below the box



Horizontal 1/3 Polar Plot



Vertical 1/3 Polar Plot



CSI PRODUCT SPECIFICATIONS FOR DESIGNERS, SPECIFIERS, AND CONSULTANTS (ALSO KNOWN AS "A&E SPECIFICATIONS")
 The following are "Part 2 Products" CSI-type specifications. It is assumed that "Part 1 General – Administrative and Procedures" and "Part 3 Execution – Installation and Maintenance" are part of an overall audio system or project specification.
 PART 2 PRODUCTS

2.01 Approved Manufacturer/Product

- A. RCF, Via Raffaello 13, 42010 Mancasale, Reggio Emilia, Italy.
 B. Model number: C5215W

2.02 Design

Configuration	Compact 2 way speaker
LF Sub-section	15" mid-bass, 3" voice coil
HF Sub-section	2" neodymium, 2,5" aluminium voice coil

2.03 Acoustical Proprieties

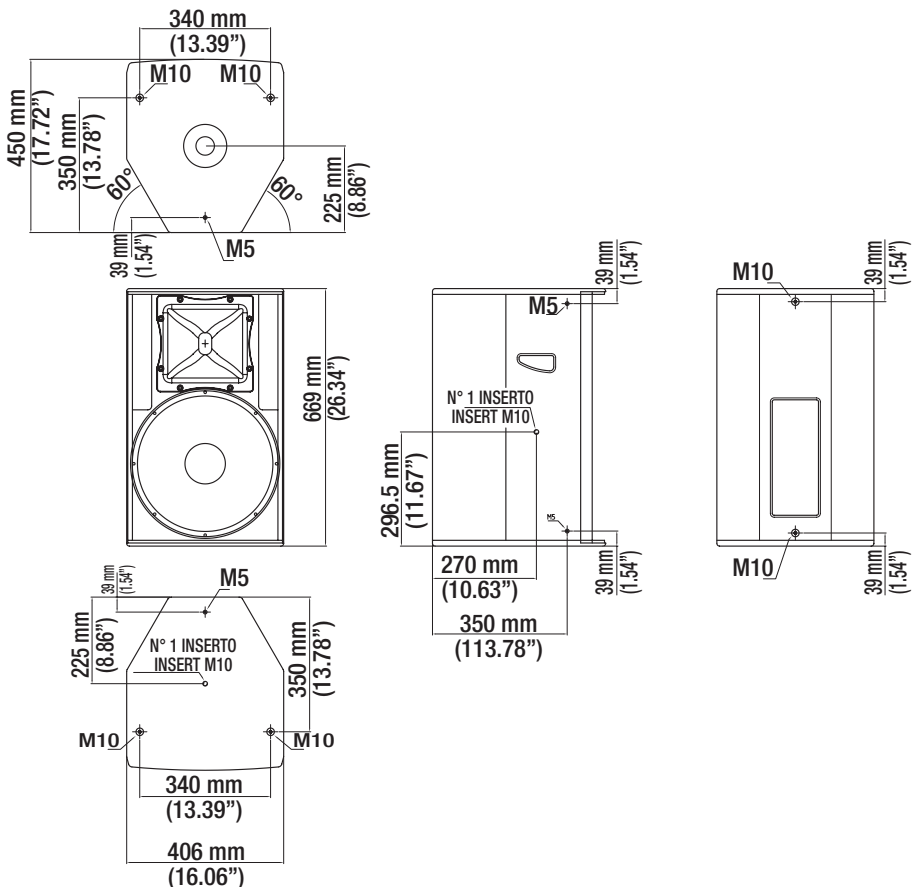
Nominal dispersion angle:	Horizontal: 90° - Vertical: 40°
Axial frequency range:	48Hz-20kHz
Axial sensitivity:	100dB, 1W @ 1m
Power handling:	Applicable power 500W RMS Musical power 1000W Peak power 2000W
Nominal impedance:	8 Ω

2.04 Physical Properties

Enclosure:	Trapezoidal, 15° side angles 19 mm birch plywood construction
Rigging inserts:	9 x M10 inserts (3 top, 2 side, 2 rear and 2 bottom), + pole mount or with optional accessory AC C08 H-BR 1 M10 inserts (bottom)
Color:	Black, scratch resistant paint
Grille:	Custom perforated steel grille with open-cell poly fiber backing
Input Connectors:	2 X Speakon® NL4
Dimensions (H x W x D):	27.16"x16.06"x17.72" 690x408x450 mm
Weight:	66.13 lb - 30Kg

2.05 Accessories

AC C15 H-BR	Pair of bracket for mounting C5215W speakers on the wall. Adjustable inclination horizontal. Colour black
AC C15 V-BR	Pair of bracket for mounting C5215W speakers on the wall. Adjustable inclination vertical. Colour black



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