



ACROBAT

Digital Wireless Intercom Unlimited (EN)



Introduction

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Digital Wireless Intercom Unlimited



The Riedel Acrobat Digital Wireless Intercom system is an easy to use full-duplex communications solution for broadcast, security, industrial and theatre applications as well as sports and cultural events. Acrobat takes a completely new approach to wireless communications, pushing it beyond the limits of existing wireless intercom solutions.

Riedel Communications' Acrobat Digital Wireless Intercom solution utilises the benefits of the Digital Enhanced Cordless Telecommunications (DECT) standard's base layer. This provides a license-free, cellular architecture with seamless hand-over between cells, allowing each Acrobat Wireless Beltpack to continuously monitor and automatically select the best connection to the Acrobat Cell Controller. Utilising the DECT platform, Riedel has advanced the technology to deliver a highly flexible wireless intercom solution that really reflects the market's needs.

Depending on the individual requirements, the Acrobat Digital Wireless Intercom can be set up as a wireless partyline system or as a point-to-point solution with all the extensive programming options known from the Artist Digital Matrix Intercom system. As a consequence Acrobat delivers a unique combination of improved user performance and optimised use of resources. Riedel's Enhanced Sync Automation (ESA) optimizes the system performance when used in environments with other DECT-based systems (e.g. telephones) by detecting them and managing the Acrobat system frequencies accordingly.

As a result, the new Acrobat Digital Wireless Intercom provides a expandable, full-duplex, licence-free intercom solution. The system is optimized for both partyline and point-to-point communications and provides digital audio quality without interference with UHF radio microphones or IEMs.

Features:

- Wireless partyline and point-to-point communications
- Up to 60/120 individually addressable Wireless Control Panels/Beltpacks (CC-60/CC-120)
- Up to 8 Wireless Partylines (CC-8)
- VoIP-over-DECT technology (worldwide license-free)
- Cellular architecture with seamless hand-over
- Enhanced Sync Automation (ESA)
- No interference with radio microphones, In Ear Monitoring (IEM) or other UHF systems

Designed To Communicate



Acrobat WB-2 Wireless Beltpack / Headset Station

The Acrobat Wireless Beltpack is a light and compact, digital headset station with two individually configurable channels for intercom and IFB use. Operation is intuitive and follows the concept of Riedel's Performer C3 Digital Partyline Beltpack. Two large rotary level controls on top of the beltpack combine talk-key and volume-control for each channel. Turning the controls adjusts the listen volume, pushing the controls toggles talk on/off with momentary or latching operation. Activation is indicated by a talk-LED, a bright call light indicates an incoming call. The beltpack features a colour display which by default shows the labels for both talk-keys and two user-definable function keys. In addition, the display gives the user access to the intuitive configuration menu. The Acrobat wireless beltpack has an XLR connector for headset and a RJ45-port for firmware updates. A fully charged RB-2300 Rechargeable Battery allows for 8 hours of operation. The rugged housing with rubber protectors includes the internal antenna.



Acrobat CC-60/CC-120 Wireless Control Panel Controller / Base Station

The Acrobat CC-60 Wireless Control Panel Controller focuses on wireless intercom applications demanding for a matrix-like intercom approach. The 19"/2RU unit intelligently connects to Riedel Artist intercoms via MAD1. The CC-60 can handle up to 60 Wireless Beltpacks / Control Panels (CC-120: 120 Wireless Beltpacks). Each beltpack uses one port in the Artist system and operates just like a wired 2-key Artist control panel. The beltpacks are configured via the Director configuration software and allow the free configuration of any function to the keys including call-to-port and call-to-conference as well as multiple commands per key. All audio and command processing is handled by the Artist system – the CC-60 provides the VoIP-over-DECT cell management including cell synchronization, channel coordination, seamless hand-over and the audio coding and IP transfer. A RJ45 Ethernet port provides connection of up to 250 Acrobat Cell Antennas via external PoE Ethernet network switches.



Acrobat CC-8 Partyline Cell Controller / Base Station

The Acrobat Cell Controller serves as the heart of any Acrobat Digital Wireless Intercom installation. The device handles the VoIP-over-DECT cell management incl. cell synchronization, channel coordination, seamless hand-over and the audio coding and IP transfer. The 19"/2RU unit connects to any partyline or matrix intercom via eight analogue 4-wire ports and 12 GPIOs. Four powered RJ45 Ethernet connectors for direct connection of up to four Acrobat Cell Antennas complete the Cell Controller's interfacing. For further coverage up to 35 additional Cell Antennas can be connected via Ethernet network switches. The configuration of the Cell Controller is achieved via a web interface.



Acrobat CA-6 Cell Antenna

The Acrobat Cell Antenna is connected to the Acrobat CC-8 or Acrobat CC-60 Cell Controller via Ethernet, allowing the use of existing standard structured cabling and providing a wide area between Cell Controller and Antennas. The Cell Antenna is powered via Power-over-Ethernet (PoE), simplifying installations by eliminating local power-supplies. The Acrobat Cell Antenna has a range of approx. 330 feet (100 meters) under line-of-sight conditions.

Acrobat RB-2300 Rechargeable Battery

The light and powerful rechargeable Lithium-Ion battery Acrobat RB-2300 allows the Acrobat Digital Wireless Beltpack 8 hours of operation.

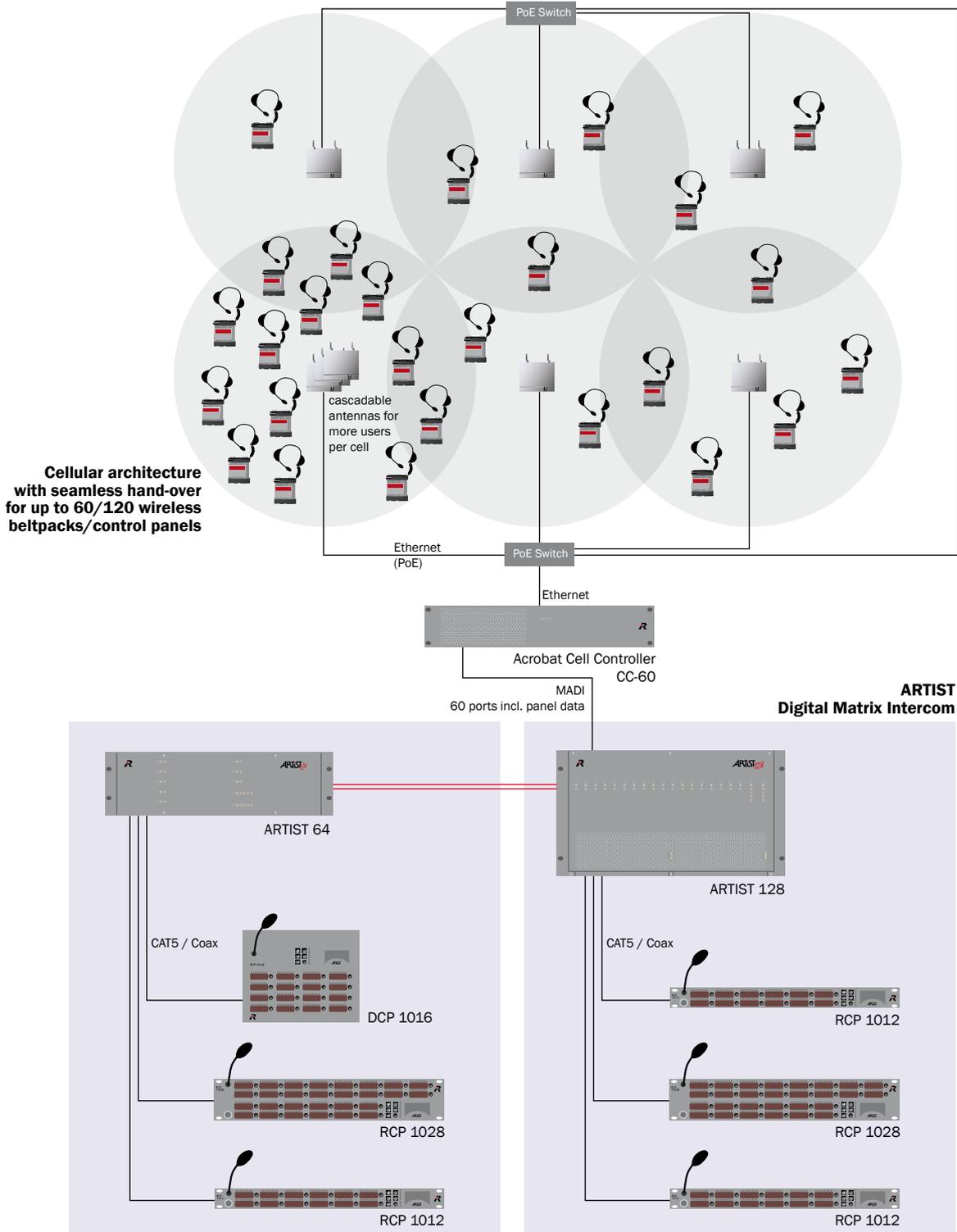
Acrobat BC-100 Battery Charger

The Acrobat BC-100 Battery charger allows for safe and quick charging of RB-2300 Batteries.

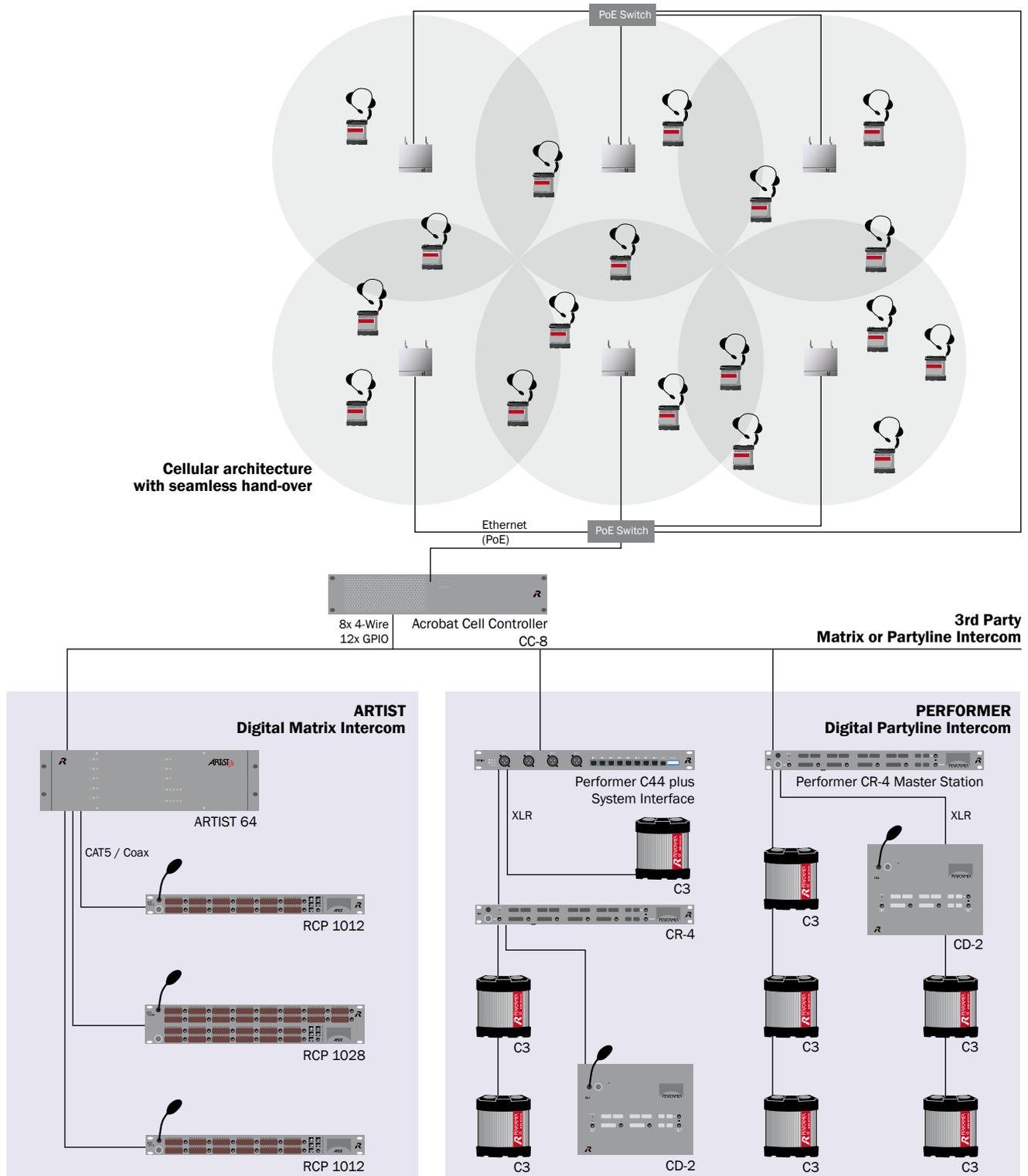


System Overview

Installation of Acrobat CC-60/CC-120 System



Installation of Acrobat CC-8 System



	Acrobat WB-2 Wireless Beltpack	Acrobat CC-8 Partyline Cell Controller	Acrobat CC-60 Wireless Control Panel Controller	Acrobat CA-6 Cell Antenna
Overall				
Operation frequency	1,870 – 1,930 MHz DECT (license-free)			1,870 – 1,930 MHz DECT (license-free)
Number of Beltpacks per Base Station/Antenna		12/18	60 (CC-120: 120)	up to 12
Number of Cell Antennas per Acrobat Cell Controller / Base Station		4x (max. 35 via external Ethernet switches; max. 2 cascaded)	max. 250 via external PoE Ethernet switches (max. 3 cascaded)	
Number of partylines	2 per beltpack	8 per cell controller	60/120 individual control panels	
Beltpack-to-Beltpack / Beltpack-to-Base Station frequency response	100 Hz – 7.1 kHz	100 Hz – 7.1 kHz	100 Hz – 7.1 kHz	100 Hz – 7.1 kHz
Single antenna range	approx. 100m line-of-sight (330 ft. line-of-sight)			approx. 100m line-of-sight (330 ft. line-of-sight)

Microphone Preamp:

Mic input impedance	1 kOhm			
Dynamic mic input level	> -52 dBu @ 1 kHz			
Electret mic input level	> -38 dBu @ 1 kHz			

Headphone Amplifier:

Load impedance	32 – 600 Ohms			
Max. output power	255 mW / 600 Ohms			
Signal-to-noise-ratio	> 70 dB (A)			
Headset connector	1x XLR4M			

Connections

MADI			1x	
Analogue 4-Wire		8x		
GPIO		12x		
Ethernet		4x PoE + 1x Config	1x	1x

Power:

Power requirements	7.2 V DC	85 – 265 V AC / 47 – 63 Hz	85 – 265 V AC / 47 – 63 Hz	48 V DC Power-over-Ethernet (PoE)
Power consumption	2.2 W (approx. 8 hours per battery)	120 VA	500 VA	6.2 W
Battery type	LiON			

Dimensions:

H x W x D	126 x 105 x 39 mm (5" x 4.1" x 1.5")	88 x 483 x 230 mm (2 RU x 19" x 9")	88 x 483 x 230 mm (2 RU x 19" x 9")	170 x 205 x 35 mm (6.7" x 8.1" x 1.4")
Mass	580 g (1.27 lb / incl. battery)	2400 g (5.29 lb)	2400 g (37.48 lb)	420 g (0.9 lb)



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