

ARTIST

The Advanced Communications Platform

Artist is a highly modular concept driving modern intercom demands. It is designed as a powerful matrix platform for intercom and the distribution of analog audio, digital audio and Ethernet data signals. The system consists of a fiber based network backbone providing a decentralised infrastructure for live audio and intercom applications.

Artist is a digital matrix intercom system providing up to 1,024 x 1,024 non-blocking ports per system. The system is based on a dual optical fiber ring to form a single large, full summing, non-blocking distributed matrix. The system still “feels” like a single unit: it is completely non-blocking and has no limitations in the number of cross-points within or between the different nodes of the system.

The maximum distance between two nodes can be up to 500 m (1650 ft) as standard, and optionally up to 80 km (50 miles). With up to 128 intercom ports per matrix frame, Artist allows a high degree of decentralisation of the entire matrix in a very cost-effective way. As a result the matrix frames can be located near the intercom stations of a specific studio or production facility, saving a considerable amount of wiring and installation costs.

ARTIST – Key Benefits

- » Distributed masterless system architecture significantly reduces wiring and installation costs
 - » Artist's flexibility allows versatile usage and quick adaption to new production needs
 - » The system's scalability and expandability makes Artist a secure long-term investment
 - » The easy and intuitive programming reduces training and service time while providing increased flexibility
 - » German engineering and quality manufacturing
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	Artist 32	Artist 64	Artist 128
Features			
Maximum matrix size	1024 x 1024	1024 x 1024	1024 x 1024
Distributed, masterless system architecture	yes	yes	yes
Redundant dual ring fiber optic network	yes	yes	yes
Up to 128 network nodes within a single fiber network	yes	yes	yes
DSP at every I/O for audio signal processing	yes	yes	yes
VOX at every port	yes	yes	yes
Hot swap of all modules	yes	yes	yes
Redundant power supplies	yes	yes	yes
Redundant node controller	yes	yes	yes
Ethernet tunneling through Ethernet interface	yes	yes	yes
Intuitive configuration software	Director	Director	Director
Max. ports per frame	32	64	128
Multiple PCs can configure the same system / user rights management	yes / yes	yes / yes	yes / yes
Number of controller / client / GPI card slots per frame	2 / 4 / 1*	2 / 8 / 1*	2 / 16 / 3*
External sync (AES3 / Word Clock)	optional	optional	optional
Stand alone version	yes	yes	yes
Alarm signalization (Hardware/Director)	yes / yes	yes / yes	yes / yes

* Installation with one Controller Card slot used for a GPI Card.

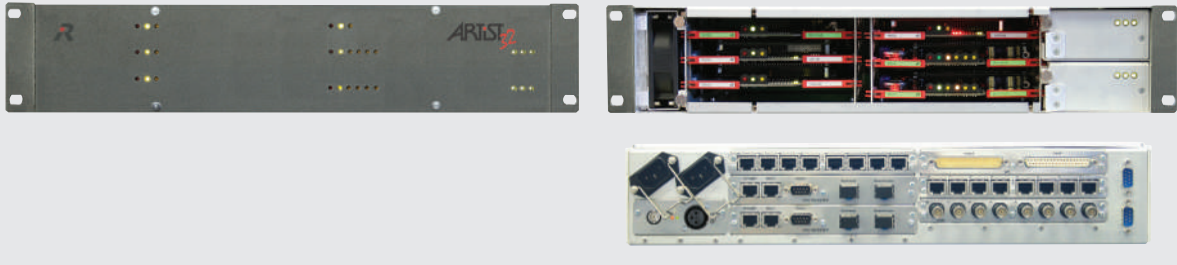
System components

Mainframes	MFR-032 G2	MFR-064 G2	MFR-128 G2
Controller cards	CPU-128 G2	CPU-128 G2	CPU-128 G2
Fiber optic modules (single-mode)	ART-Z-SFP-CPU-SM-1310-10,5-1,25Gbps	ART-Z-SFP-CPU-SM-1310-10,5-1,25Gbps	ART-Z-SFP-CPU-SM-1310-10,5-1,25Gbps
(multi-mode)	ART-Z-SFP-CPU-MM-850-8,5-1,25Gbps	ART-Z-SFP-CPU-MM-850-8,5-1,25Gbps	ART-Z-SFP-CPU-MM-850-8,5-1,25Gbps
(high power)	ART-Z-SFP-CPU-MM-1310-10-1,25Gbps	ART-Z-SFP-CPU-MM-1310-10-1,25Gbps	ART-Z-SFP-CPU-MM-1310-10-1,25Gbps
Power supplies	PSU-032 G2	PSU-064 G2	PSU-128 G2

Client Cards

Digital Client Card Coax 8 digital control key-panel ports on individual 75Ω BNC connectors for connection of Artist key panels using coax cable	COX-108 G2	COX-108 G2	COX-108 G2
Digital Client Card CAT5 8 digital control key-panel ports on individual RJ-45 connectors for connection of Artist key panels using CAT5 computer cable	CAT-108 G2	CAT-108 G2	CAT-108 G2
Analog Client Card 8 transformer balanced (AIO-109 G2: electronically balanced) Analog 4-wire intercom ports (+18dBu in/out) on individual RJ-45/D-Sub25 for connection to equipment such as studio loudspeakers, cameras, telephone hybrids etc.	AIO-108 G2 (AIO-109 G2)	AIO-108 G2 (AIO-109 G2)	AIO-108 G2 (AIO-109 G2)
Digital Client Card AES Digital audio I/O-card (4x AES3) incl. Sample Rate Converter on RJ-45 for connection to digital mixing consoles, routers etc.	AES-108 G2	AES-108 G2	AES-108 G2
GPI Client Card 16 outputs (300 mA, 60V) and 16 opto-isolated level inputs (5-48V) on SubD37 to read Tallies, key transmitters, etc.	GPI-116 G2	GPI-116 G2	GPI-116 G2
8 Channel MADI Client Card Cascadable to 64 channels on one MADI stream. Includes audio & panel data to remote panels or connect multi-channel audio to audio routers. Optical & Coax MADI links are supported.	MADI-108 G2	MADI-108 G2	MADI-108 G2
8 Channel VoIP Client Card (EBU Tech 3347 compatible) Converts 8 Artist control key-panel ports into a compressed IP-stream and vice versa, SIP-based, RJ45 connector	VOIP-108 G2	VOIP-108 G2	VOIP-108 G2
8 Channel Ethernet AVB Client Card (AVnu AVB) Converts 8 Artist control key-panel ports into an Ethernet AVB stream and vice versa, RJ45 connector / prepared for AES-67	AVB-108 G2	AVB-108 G2	AVB-108 G2
8 Channel AES67 Client Card Converts 8 Artist control key-panel ports into an IP AES67 stream and vice versa on RJ45 connector	AES67-108 G2	AES67-108 G2	AES67-108 G2

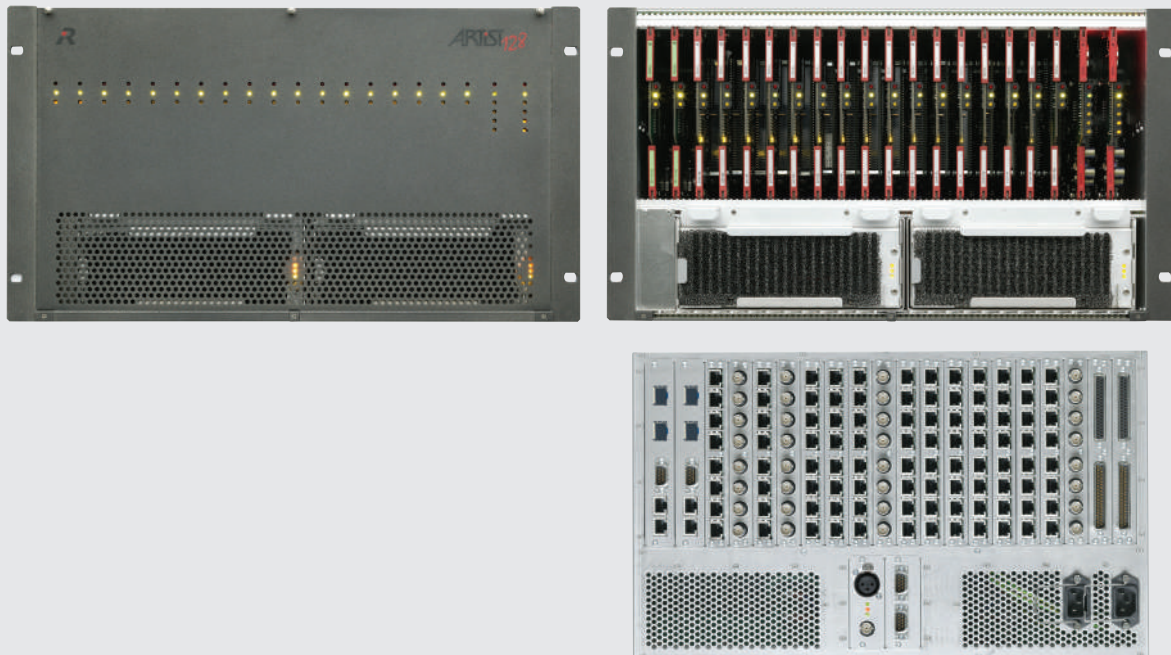
Artist 32 (front, open & rear view)



Artist 64 (front & rear view)



Artist 128 (front & rear view)



ARTIST Matrices

Scalable System Frames that Grow with your Demands

Riedel Artist is a true network infrastructure based on highly modular matrix mainframes. The individual Artist matrix mainframes can be equipped exactly as needed. But it is not only the mainframes themselves being modular and thus expandable, it's also the system's distributed architecture itself.

Simply select the desired frame size and add the client cards you need. As your demands grow, you can easily expand your system by adding new client cards or additional frames to your system. And if you need to exchange a smaller frame for a bigger one you don't need to buy new controller & client cards. Since all Artist frames feature the same type of cards, you can just simply use the cards you were using before. This scalability and expandability makes Artist a secure long-term investment.

Up to 128 ports can be accommodated in a single frame and up to 100 frames can be connected to a redundant dual fiber optic ring resulting in a maximum matrix size of 1,024 x 1,024 non-blocking intercom ports. The system still "feels" one unit: it is completely non-blocking and has no limitations in the number of cross-points within or between the different nodes of the system. In addition, up to 50 Artist intercom systems can be trunked over long distance (POTS, ISDN, VoIP) and over short distance (analog audio, MADl, AES, AVB, ...) using the Trunk Navigator software to a system size of 51,200 ports.

Client Cards available for ARTIST:

- Analog 4-wire I/O
- AES3 I/O
- GPI/O
- MADl
- Voice-over-IP (EBU Tech 3347 compatible)
- Ethernet AVB / prepared for AES-67
- AES-67

ARTIST Matrices – Key Benefits

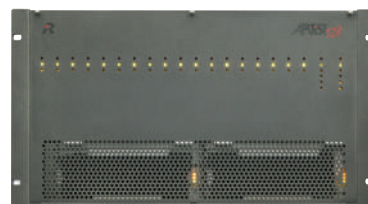
- » Easily scalable from 8 x 8 to 1,024 x 1,024 full summing, non-blocking ports, further expansion via trunking to 50,200 ports.
- » Fully redundant system with a redundant dual ring fiber optic network. All modules are hot-swappable.
- » Easy system expansion – all matrix frames feature the same type of controller & client cards. This also reduces significantly the need for spare pooling.
- » Extensive interfacing via client cards provides for easy system integration.
- » The system's scalability and expandability makes Artist a secure long-term investment.
- » Efficient cooling concept results in a very quiet system – an advantage not only for mobile production units.



Artist 32 Matrix



Artist 64 Matrix



Artist 128 Matrix

Add-on Features

The modularity of the Artist platform is also implemented with the Director configuration software. Already noted as a powerful tool, Director can be enhanced by modular software add-ons like RRCS, Trunk Navigator, Partial Files, Audio Video Router or the Master Control Room.

Partial Files

The Partial Files add-on saves not only entire configurations but can also save just a portion of a configuration. These “partial files” can be reloaded so that system setups for different types of productions can be more easily stored and recalled.

Audio/Video Router Interface

With this optional software package the system continuously monitors up to two external routing switchers and provides a conference based tracking of your Artist intercom system.

Events/Scheduler

The Events/Scheduler add-on is a versatile tool to automatically trigger pre-defined events (including MCR conferences) or configuration changes.

Master Control Room

With Master Control Room the individual conference intercom systems or 4-wire conference systems found in many broadcast installations can be easily replaced and integrated into the main intercom system. An integrated scheduler allows for pre-programming the start of regular conferences, e.g. the daily editorial conference at 9:00 am.

Riedel Router Control Software RRCS 2.0

The Riedel Router Control Software (RRCS) provides a universal XML interface for enabling third party router control systems to control Riedel Artist Intercom systems. Version 2.0 of the RRCS Software features an expanded set of XML commands for the software to allow for an even deeper integration of external third party control systems and Artist.

Trunk Navigator

Riedel's Trunk Navigator Software enables you to comfortably network geographically diverse Artist Intercom systems by dynamically allocating audio trunk lines between their locations. These trunk lines could be established with ATM, ISDN, VoIP, digital leased lines or analog land lines. The redundancy design enables the software to run on two computers simultaneously and switch seamlessly from one computer to the other in the case of a failure. Trunk Navigator allows the trunking of up to 50 Artist intercom systems with a total system size of 51,200 ports.

ACTOR – RTS®/Telex® Trunking Interface

The Riedel Actor is a revolutionary solution that allows intelligent trunking between Riedel Digital Matrix Intercom systems and existing RTS®/Telex® intercom installations (using Trunkmaster version 8.71). It provides seamless communications between both systems. This includes all point-to-point connections with port alpha transfer and tally as well as IFBs, group calls and conferences (partylines). Actor helps to secure previous intercom investments and enables customers to proceed in future intercom installations with an Riedel Digital Matrix Intercom solution.

RTS & Telex are registered trademarks of Bosch Security Systems Inc.

ARTIST - System Overview

Due to its decentralized infrastructure, its modularity and its extensive interfacing capabilities the Artist platform is flexible enough to meet all your live audio and talkback application needs. Even in huge installations consisting of hundreds of intercom ports with multiple nodes, the access, set-up and control of any aspect of the entire system is easily handled using the comfortable and intuitive Director configuration software.

