Glensound
Keeps Working

SPARK

Sub Compact Single User Commentary

- Available From 0-3 Talkback Circuits

- Single User Commentary Using Dante Broadway Module

- Sub Compact Desktop Design

- Extra Dante Functions with 8x inputs & 8x Outputs on Dante Controller

- Full Remote & Monitoring Using Windows 10 App GlenController

Overview

The Spark is the first of Glensound's next generation of commentary unit using Audinate's Broadway Dante chipset. It is a sub compact, single user unit, available in 4 different versions with options of 0 - 3 talkback circuits. It is fully integrated with GlenController, allowing comprehensive remote control and monitoring functions. With the increased demand for remote production and home working, the Spark fits the bill.

The Spark is the most technically proficient commentary or announcers interface available, from such a small design. For applications where desk space is at a premium, but quality and features are still paramount, Glensound proudly introduce the Spark.

Dante® Commentary

$SPARK$

Sub Compact Single User Commentary

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Features

Four Versions To Choose From
- Spark - With single programme monitor input, and one master output
- Spark 1 - Adds 1 talkback channel and monitor
- Spark 2 - Adds 2 talkback channels and monitors
- Spark 3 - Adds 3 talkback channels and monitors

Glensound Grade Mic Amp
The Spark includes the highly regarded Glensound Grade mic amp system. This results in a clean audio input without distortion or clipping, that can be taken live to air with confidence and without any further processing. The mic input is on the rear panel via a 3 pin XLR socket. A small pot adjusts the gain level and there is a switch for 48v phantom power. Mic gain, phantom power and the compressor can also be set via the GlenController remote software.

Glensound Referee Compressor/Limiter System
Glensound has been fine tuning the way input signals are managed for decades. Glensound boxes are used in live news and sport environments, where the announcer can get immediately over enthusiastic, and be screaming down the microphone. Glensound manage this input in two ways. One by giving the input a high headroom to prevent clipping in the first place, then by using a specially configured compressor/limiter system. This system does not affect the general dynamics of the audio, so there is no lifting of levels. It only becomes active as the signal reaches peaks and approaches clipping. Then a gentle compression is added that, in a unifron mannar, becomes harder and harder as the signal approaches clip. The result is a background system, that has no affect on the general dynamics of the input, but prevents it from clipping.

Headphones
The rear panel has a 6.35mm jack socket for connecting headphones from 32-1000 ohms. The Spark features Glensound's automatic impedance matching system. This means the relative headphone pot level will be consistent regardless of the impedance of the headphones used (as long as they are between 32-1000 ohms).

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Rear Panel

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Features

Power

Power is supplied on the network connection via an Neutrik EtherCON locking RJ45 connector. The SPARK must be connected to a PoE network switch for power, or by using a midspan PoE injector. There is also a 12VDC input on the side of the unit

Talk Buttons

For clarity, the Spark uses large and bright LED buttons for talk and mic on. These can be configured individually via the GlenController remote software, and can be set in the following way:

- Always on
- Always off
- Always on but muted when pressed (cough button)
- Latching on
- Momentary push to talk
- Intelligent (momentary and latching)

Spark 3

Interactions can also be set per talkback button to set if the activation of this button should mute the main programme Mic..

Headphone Mixer

The front panel has small monitoring pots that are routed to the headphones from the inputs on the Dante network:

- One monitoring pot on the Spark,
- Two monitoring pots on the Spark 1,
- Three monitoring pots on the Spark 2,
- Four monitoring pots on the Spark 3.

Monitoring Pots

These are sprung pots that are kept flush with the panel when not in use. Pressing them in slightly allows them to spring out to make adjustments, and then return to the flush position. This method allowed the functionality of pots for each monitoring input, but also allowed us to keep the overall dimensions of the Spark to a minimum.

Headphone Mixer (Cont..)
Using the GlenController remote, each pot can be set to a separate pan position. The pots can also be set to cut at the full anti clockwise position, or just to a dim level so that the user cannot turn the monitoring input all the way off. These features are also present on the further auxiliary monitoring inputs.

There are 4 further inputs to the headphone monitoring that can be adjusted on Glencontroller:
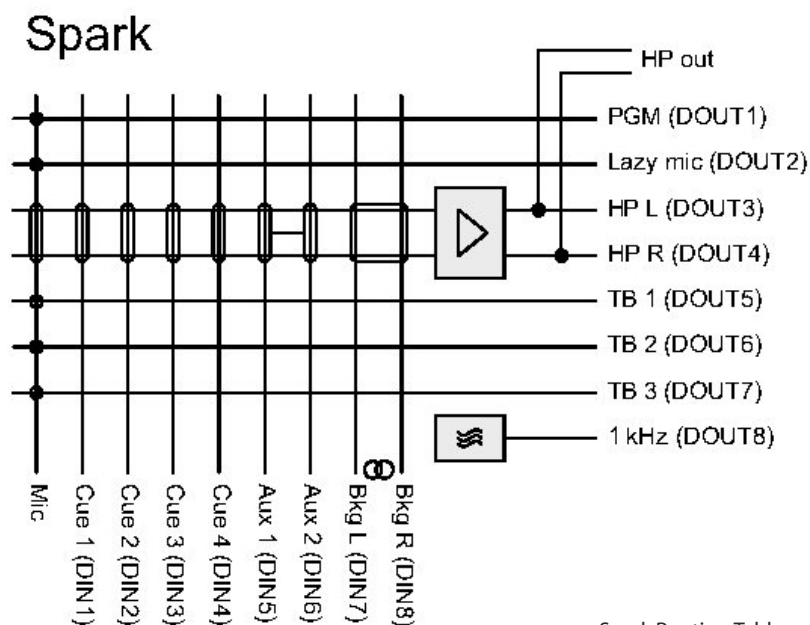
• Sidetone to adjust the users own voice level in their headphones
• Aux 1 - Mono input direct to headphones controlled only in GlenController (Aux 1&2 controlled together)
• Aux 2 - Mono input direct to headphones controlled only in GlenController (Aux 1&2 controlled together)
• Bkg - Stereo input direct to headphones controlled only in GlenController.
• HP

Spark Direct System Control
The Spark features 8 inputs and 8 outputs across the Dante network, but even with the Spark 3, it only directly needs 4 inputs and outputs. This means that we have 4 inputs and 4 outputs on the network available for further use. This diagram show how we utilise the I/O resource of the Spark to maximise its flexibility for various applications:
Mic/Line Input - This is the main mic/line input and can be switched to:

• The Main programme output on Dante out 1, via the top panel switch
• Talkback output 1 via Dante out 5, via the top panel switch (Spark 1 only)
• Talkback output 2 via Dante out 6,   via the top panel switch (Spark 1 & 2 only)
• Talkback output 3 via Dante out 7, via the top panel switch (Spark 1,2, & 3 only)
• Permanent live output on Dante out 2
• It is also mixed via a top panel control into a two channel headphone output as sidetone monitoring.

Spark Routing Table

SPARK

Sub Compact Single User Commentary

GlenController

Dante Inputs

- Cue input 1 via Dante in 1, is sent to the headphones via a top panel mix pot
- Cue input 2 via Dante in 2, is sent to the headphones via a top panel mix pot (Spark 1 only)
- Cue input 3 via Dante in 3, is sent to the headphones via a top panel mix pot (Spark 1 & 2 only)
- Cue input 4 via Dante in 4, is sent to the headphones via a top panel mix pot (Spark 1,2 & 3 only)

Further Outputs

Dante out 3 and 4 - These outputs are in parallel to what is sent to the users headphones, making the 2 channel headphone mix available on the network

Dante out 8 - This is a 1kHz tone for assisting with line up

Latest Dante Broadway Design

This Broadway Design can receive audio from multiple network connections, and allows a higher number of Dante inputs and outputs across the network. The design on the Spark actually presents itself on Dante Controller with 8 inputs, and 8 outputs (see routing table for further info)

**Dimensions
80 x 125 x 80 mm
(WxDxH)**

Spark 3 in Hand

SPARK

Sub Compact Single User Commentary

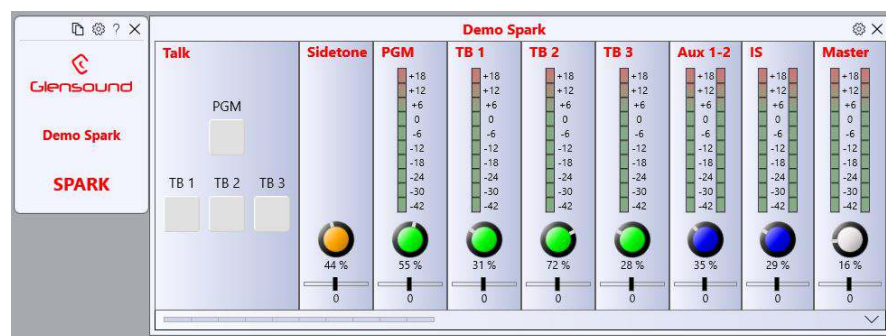### Remote Control

Spark Remote Control

The following settings on the Spark are configurable on the unit directly:

• Master headphone volume/panning
• Mic sidetone volume/panning
• Incoming call chime volume

Using the blue side panel buttons enables configuration mode directly on the Spark.

Using the Windows 10 app GlenController enables full remote configuration and monitoring and enables the following control:

• Talk button config options
• Mic input gain/pan
• Phantom on/off
• Compressor on/off
• Pot/switch lock

• Headphone levels volume/pan
• Mic sidetone volume/pan
• Headphone monitoring pot range
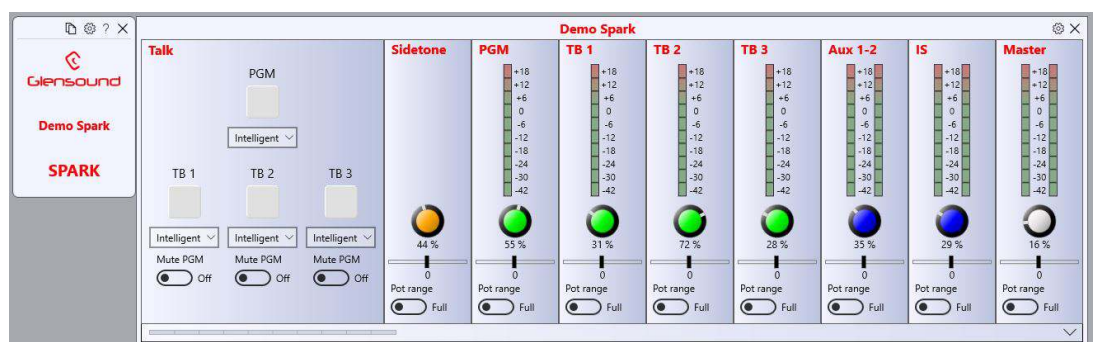• Incoming call chime volume
• PPM meter per input

Standard Remote

Multi Channel Sync

The Spark can easily connect with a PC or Mac and exchange bi-directional multi channel audio. To do this use the Dante Virtual Sound Card (VSC). This is very low cost and available directly from the Audinate web site at www.audinate.com. The Sparks I/O can then interface with any application running on a PC or Mac by simply selecting Dante VSC as its sound device.

This has been very popular when using browser based multi channel intercom and IP

Expanded Remote

solutions.

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Specification

AUDIO

Mic Input Gain Range

61 to 21dB

Phantom Power

48v

Equivalent Input Noise

125.6dBu (residual @max gain 150 Ohms)

Headphone Impedance

32 to 1000 Ohms
(Auto output level to match impedance)

Maximum Headphone Output

+18dB into 600 Ohms

Headphone Connector

6.35mm (1/4") TRS jack socket

Band Pass Filter
43Hz to 20kHz. Notch filter at 20kHz

NETWORK

Dante

Yes using Broadway modules

AES67 Compliant

Yes

SMPTE ST-2110-30 Compliant

Yes, using Dante Domain Manager

Number Of Network Interfaces

2 - fully isolated

Copper Ethernet

1 x Neutrik EtherCON connectors

Fibre Ethernet

No

Audio Sampling Frequency

48kHz

Transfer Rate

1000 Mbps

Resolution

24 bit

POWER

PoE

May be powered by the PoE network port
Complies to: IEEE 802.3af-2003
Classification Class 0

Consumption

<15 Watts

DC Input

2.5mm Barrel, Centre +Ve, 12Volts

Power On LED

Bright Blue

PHYSICAL

Size

80 x 125 x 80 mm (WxDxH)

Weight

0.4Kg

Mechanics

All aluminium construction, anodized and
laser etched, powder coated sides

ENVIRONMENTAL

Operating Temperature

0 to +50 $^\circ$C (32 to 122 $^\circ$F)

Storage Temperature

-20 to +70 $^\circ$C (-4°C to 158 $^\circ$F)

Relative Humidty

0 to 95% non-condensing

INCLUDED ITEMS

Handbook

Available by download

RJ45 Network Cable

2 metre Cat5 RJ45plug /RJ45plug cable

E & OE

Dante®