

# Klark Teknik DN1248 Plus

Signal distribution is central to any convoluted multideestination 'system' and the humble microphone splitter sits at the very heart of that centre. **TERRY NELSON** checks out a box that solves problems with ease and flair.

**IT IS NO SECRET** that a well-designed cabling and distribution system is worth all the black boxes in China and, after the not-so-humble DI box, here we are with the microphone splitter. It seems only very recently that active microphone splitter systems were the preserve of the well heeled but more people now seem prepared to make this sort of investment. With its long involvement in live sound, it is logical that Klark Teknik would feature a microphone splitter in its range and the DN1248 Plus is its latest offering.

Housed in a 3U rack chassis, the DN1248 Plus features 12 channels, each with 4 separate outputs, plus a solo function that provides metering and headphone monitoring for the channel – or channels – selected.

The front panel features an input XLR and three output XLRs mounted vertically for each channel, together with five pushbuttons. All XLR connectors feature gold-plated contacts. The right hand end of the front panel houses the blue illuminated KT logo to indicate power plus a stereo headphone socket, a 7-segment LED meter, and a headphone volume control for the Solo function.

The rear panel is divided up into three sections with XLRs mounted on removable connector plates. Two plates duplicate the input and output 1 connectors, while the third plate holds the connectors for output 4. The remaining facilities are loop through in/out XLR connectors for the Solo function (more of which later) and an IEC mains socket.

The DN1248 Plus powers up directly when plugging in the mains cable, there being no power on/off switch. This is in typical broadcast tradition where inadvertent powering down needs to be avoided at all costs. The theory of operation is simple: you have a signal source and you want to send it to up to four destinations. A typical situation would be house and monitor consoles, a recording truck and an OB van – or any variation on this particular theme.

Isolation is paramount and to this end the splitter features two electronically balanced outputs (1 and 4), which would normally be used for the PA system, and two transformer balanced outputs (2 and 3) for external systems such as mobiles or recording set-ups. The transformer outputs could also be used in difficult conditions for optimal protection from induced noise.

Each channel features the microphone preamplifier from the Midas Heritage PA console and this should be enough to satisfy most discerning users. Channel controls offer three pushbuttons with LEDs to the left of the module for Solo, Lift (for earth/ground lift), and 48V. The phantom power button has an appropriate red LED while the others are amber and green respectively.

The right side of the panel has Signal present and Clip LEDs plus pushbuttons for +30dB boost and -15dB pad for setting the gain structure of the channel. These can be combined for a setting of +15dB. Normal operation is unity gain and these four settings should be sufficient for most applications, any fine-tuning for gain being done at the console. The frequency response was measured to be flat from 20Hz – 22kHz within 0.4dB.



The earth lift switch is on the channel input and applies to line signals rather than microphones. The Solo function is useful for setting the channel gain and for local monitoring of the signal over headphones. The switch is dual function and will either latch electronically or be momentary for as long as it is held down. Making the switch latch requires a short, sharp flick of the finger and once this is realised, operation is simple and painless. The latched Solo is deselected with a second push of the button and multiple channels can be selected as required. A 7-segment LED meter displays the level for the channel selected.

The XLR I-Os on the rear panel allow multiple splitters to be connected together with a common monitor bus. However, metering is always on the unit receiving the signal being monitored.

I tested the DN1248 Plus in various combinations and with a variety of microphone and line signals, as well as multiple destinations, with no difference in sound being noted between the electronically balanced and transformer outputs. Operation was extremely quiet in all instances and no hum loops were experienced.

Earth lift switches are always a bit of a conundrum and whereas having one on the input for line signals is useful, there are times when having them on the outputs can also save the day. However, this can lead to problems due to tripped switches so Klark Teknik has probably made the right decision to keep it simple. The transformer outputs should keep most problems at bay.

Options on the DN1248 Plus include transformers on all outputs, dual power supplies for failsafe operation, or a combination of the two.

The rear connector plates can be replaced with blanks for the mounting of multipins and connection is simplicity itself, with the wires being inserted into spring-loaded terminals at the back of the channel boards. As it is highly unlikely that the user manual will be to hand, KT has thoughtfully included the pin out connections on the inside of the top cover.

The DN1248 Plus will form the basis of a sophisticated signal distribution system and the 12-channel format provides building blocks of a reasonable size. However, the chassis does contain a fan and for sensitive location recording work, this could be a problem. This said, KT is investigating temperature-sensing control of the fan speed to solve this.

Highly recommended. ■



## PROS

Convenient 12-channel package; multipin connectors easily installed; solo monitoring and flexible gain settings; high audio quality.

## CONS

Fan noise could be a problem in critical recording situations

## EXTRAS

KT has two EQ units under the Helix moniker. The DN9340 is a 2U, dual channel digital EQ for dual 31-band graphic operation. It can function as a dual 12-filter fully parametric, a dynamic EQ, and has 1 second of delay per channel.

The DN9344 Slave unit offers four channels of Helix configurable EQ in 1U.



## Contact

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