graphite one.
cost-efficient
on-air console.

![Graphite One on-air console]

reliable and cost-efficient

Graphite One on-air consoles are equipped with 21 inputs (including an optional interface card with 4 AES inputs), 4 main buses and 9 outputs. The consoles can be controlled by either 6 or 12 fader positions – each fitted with A/B channel switch – and offer a sophisticated monitoring and talk-back unit. In addition, each microphone and telephone channel is fitted with parametric three-band equalizers as well as dynamics with limiter, compressor and expander.
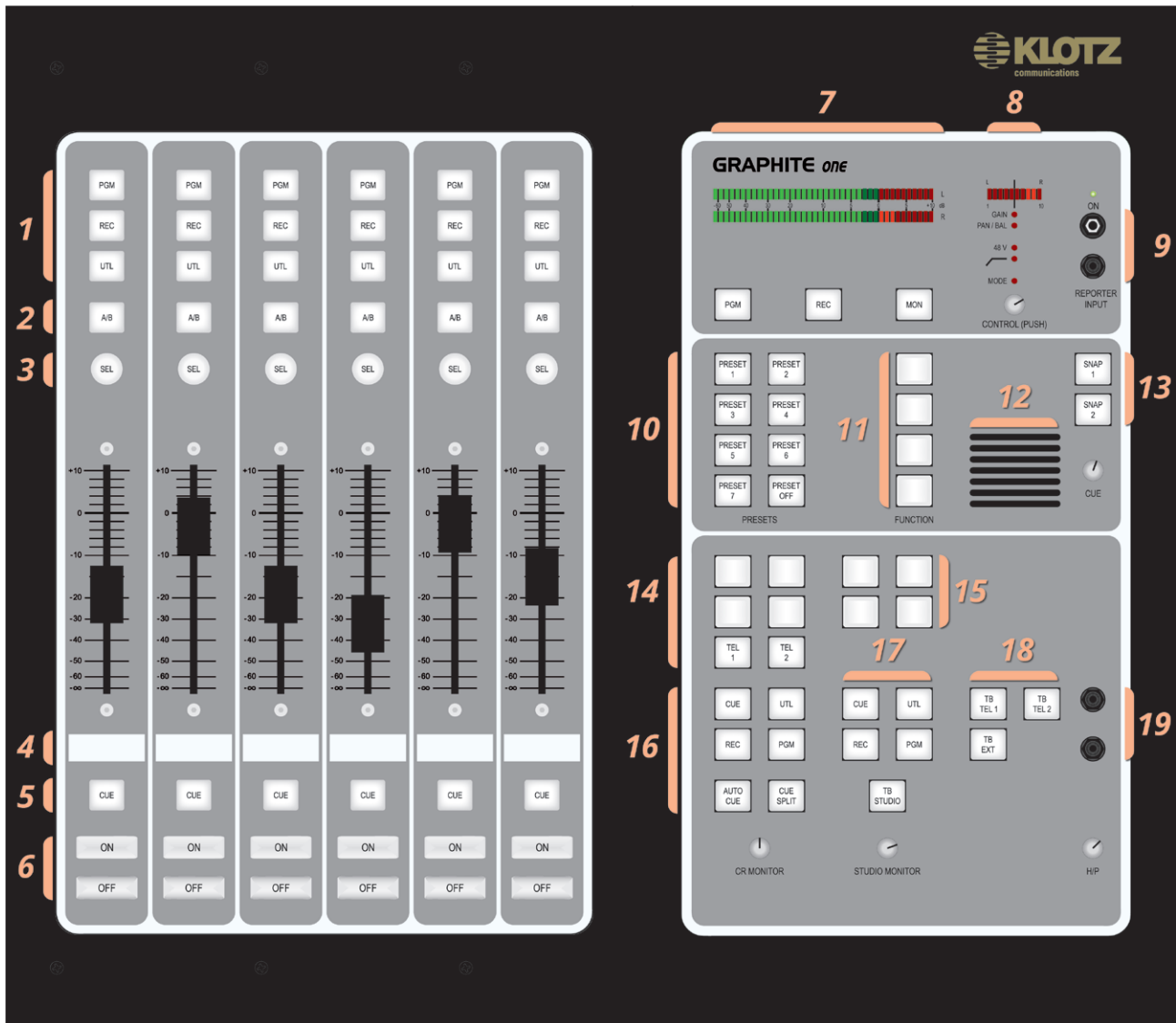
To fulfill our customers' "ready-to-use" product requirements, **Graphite One** consoles come with an integrated mix-minus matrix which can be configured using the Graphite Setup Tool (GST). Each fader strip can be configured with controls for either internal functions such as automatic channel activation or for

external devices via the integrated 24 GPI I/Os. Up to 7 presets can be stored and 4 free configurable function keys allow for easy control of frequently used operations. **Graphite One** consoles are ready to use as soon as you have connected power, sources and outputs. No time-consuming system set-ups are necessary before you can use your **Graphite One** console hence you still can program lots of your own settings if you wish.

You will see that **Graphite One** is much more than just a useful and cost-efficient console for small and even mid-size radio stations: Because of its most recent electronic design combined with any feature a modern radio station console needs today owners of **Graphite One** consoles enjoy a future proof hence reliable and easy to operate professional on-air console.
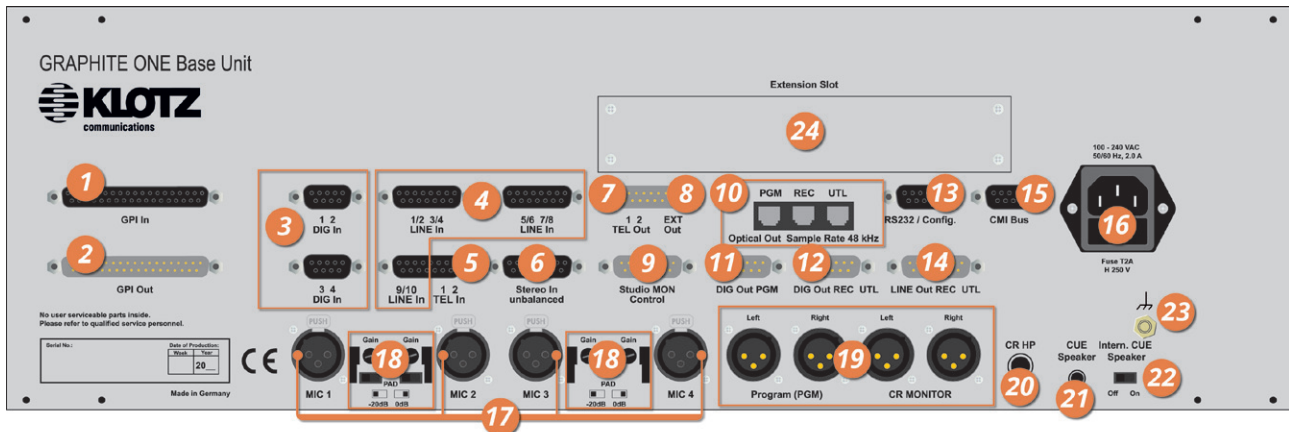
Top View Graphite One

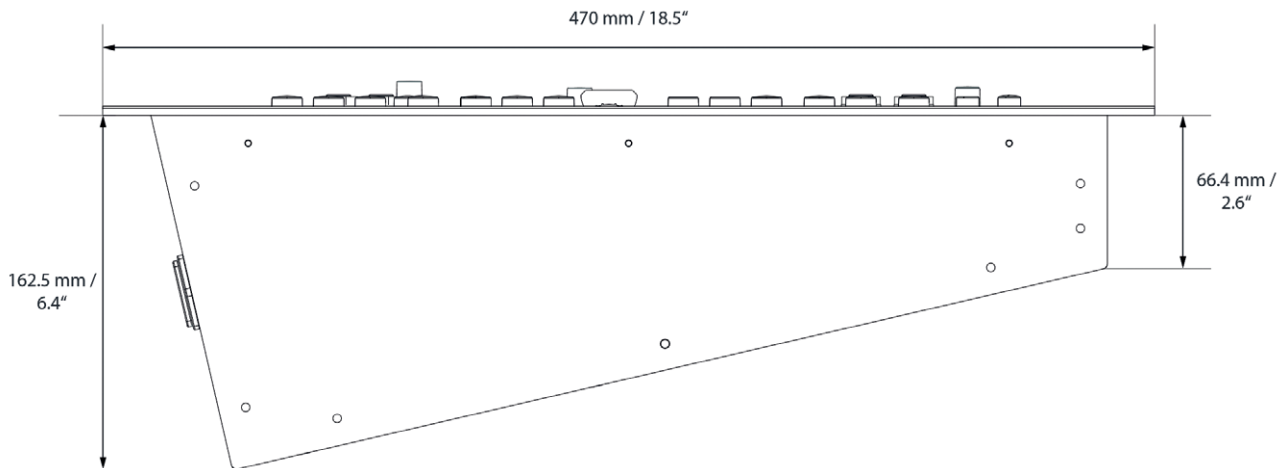|	
1	Output buses REC, UTL, PRG
2	A/B buttons for source switching
3	Input channel select
4	Labels for channel names
5	CUE bus
6	On-Off buttons
7	Stereo level meter
8	GAIN, PAN, 48V, Roll-Off filter indicator
9	Reporter Input
10	DSP Preset keys
11	Function keys
12	CUE speaker
13	Snapshot keys
14	External Source select for control room monitor
15	External Source select for studio monitor
16	Control Room monitor controls
17	Studio monitor controls
18	Talkback controls
19	Headphone

Rear View Graphite One

1   GPI inputs

2   GPI outputs

3   Digital inputs

4   Line signal inputs

5   Mono telephone inputs

6   Unbalanced stereo input signals

7   Analog mono highlevel telephone outputs

8   Analog mono highlevel outputs to external devices e.g. (intercom system)

9   Studio monitor and headphones outputs and GPI inputs/outputs

10 Optical digital main bus outputs

11 Electrical digital PGM bus output

12 Electrical digital REC and UTL bus outputs

13 RS232 configuration inputs and outputs

14 Line level REC and UTL bus outputs

15 CMI bus inputs and outputs

16 Power connection

17 Analog balanced microphone inputs

18 Gain control für microphone inputs

19 Balanced analog high-level signal outputs for PGM bus and control room monitor signals

20 Control room headphones output

21 External cue speaker output

22 Internal cue speaker toggle switch

23 Ground bolt

24 Extension slot for AES input extension module

Side View Graphite One

470 mm / 18.5"

66.4 mm / 2.6"

162.5 mm / 6.4"

Cut out dimensions

Base unit
Width: 530 mm
Depth: 440 mm

Expansion unit
Width: 310 mm
Depth: 440 mm

Specifications Graphite One

Inputs

4	Microphone inputs
4	Digital inputs
4	Optional stereo inputs
5	Stereo line inputs
2	Telephone mono inputs
1	Unbalanced stereo input
1	Reporter stereo input

Outputs

4	Output buses (CUE/PFL, PGM, UTL, REC)
2	Telephone outputs
1	Cue/Speaker output
1	Studio monitor output
1	Control room headphone output

graphite one – technical specifications

KLOTZ communications

Inputs	Microphone inputs	Line level inputs, balanced	Line level inputs, unbalanced
Input sensitivity range	-55 dBu to -17 dBu without pad, -35 dBu to 3 dBu with pad	24 dBu ±0.1 dBu	6 dBu ±0.1 dBu
Phantom power	48 V, switchable	-	-
Frequency response	±0.13 dB @ 1 kHz	±0.2 dB @ 1 kHz	±0.2 dB @ 1 kHz
High-pass filter	100 Hz, 12 dB/octave, switchable	-	-
Input impedance	2 kΩ	24 kΩ	24 kΩ
A/D converter	24 bit	24 bit	24 bit
Dynamic range	99 dB @ sensitivity = -20 dBu, 20 Hz kHz - 22 kHz, A-weighted 88 dB @ sensitivity = -40 dBu, 20 Hz kHz - 22 kHz, A-weighted	102 dB @ 20 Hz - 22 kHz, A-weighted	102 dB @ 20 Hz - 22 kHz, A-weighted
THD + N	0.02% @ sensitivity = -40 dBu, input level = -41 dBu, 20 Hz - 22 kHz	0.003% @ -1dBFS input, 20 Hz - 22 kHz	0.003% @ -1dBFS input, 20 Hz - 22 kHz
Common mode rejection	80 dB @ 1 kHz	80 dB	80 dB
Crosstalk	> -90 dB @ 20 Hz - 22 kHz	> -90 dB @ 20 Hz - 22 kHz	-

Outputs	Analog outputs, balanced	Analog outputs, unbalanced	Headphone outputs
Output level	24 dBu ±0.1 dBu	5 dBu ±0.5 dBu	Maximum output level = 1.2 V min.
Frequency response	±0.3 dB	±0.3 dB @ 1 kHz	±1 dB @ 1 kHz
Output impedance	50 Ω	-	-
D/A converter	24 bit	24 bit	24 bit
Dynamic range	103 dB @ 20 Hz kHz - 22 kHz, A-weighted	98 dB @ 20 Hz - 22 kHz, A-weighted	98 dB @ 20 Hz - 22 kHz, A-weighted
THD + N	0.002% @ sensitivity = -40 dBu, 20 Hz - 22 kHz, A-weighted	0.002% @ -1dBFS input, 20 Hz - 22 kHz	0.007% @ -1dBFS input, 20 Hz - 22 kHz
Common mode rejection	80 dB @ 1 kHz	80 dB	80 dB
Crosstalk	> -90 dB @ 20 Hz - 22 kHz	-	-

Digital interfaces	Digital inputs	Digital outputs
Type	AES, electrical and optical S/PDIF (Toslink)	5 dBu ±0.5 dBu
SFC resolution	24 bit	-
Input sampling rate	32 kHz - 96 kHz	-
Input impedance	110 Ω @ AES3 input 75 Ω @ S/PDIF input	110 Ω @ AES3 input 75 Ω @ S/PDIF input
Dynamic range	128 dB	144 dB
THD + N	0.002 % max.	-

Specifications are subject to change without notice.

contact

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