

		GS-CU004	GS-CU008	GS-CU010	GS-VC1	GS-BC2
MICROPHONE INPUTS GENERAL	QTY Mic/Line inputs on XLR	1				
	QTY Mic inputs on XLR		1	1	2	2
	Qty unbalanced 3.5mm inputs					
	Mic ON switch configuration	User Programmable	User Programmable	User Programmable	Fixed	Fixed
MICROPHONE INPUTS TECHNICAL	Mic input gain range	44 to 67dB	42 to 66dB	43 to 65dB	Fixed @ 53dB Can be factory changed	Fixed @ 54dB Can be factory changed
	Phantom power input gain range	36 to 59dB	31 to 56dB	33 to 55dB		Fixed @ -44dB Can be factory changed
	Line input gain range	1 to 24dB				
	Headroom (No dB above line up before clipping)	32dB	39dB	39dB	34dB	45dB
	Input impedance	>=1K5	1K5	1K1	1K5	1K5
	Compressor/ Limiter (dB IN : dB OUT)	Fixed 3:1 ratio (approx)	Selectable complex ratio 2:1 to 5:1	complex ratio 2:1 to 5:1	complex ratio 10:7 to 5:1	complex ratio 10:7 to 5:1
	Phantom Power Voltage	12V (P12L)	48V	12V (P12L)	12V (internal link)	12V (P12L)
Band Pass Filter -3dB Points Filters are 12dB per octave	30Hz & 24kHz	30Hz & 20kHz		20Hz & 24kHz	30Hz & 20kHz	
PROGRAMME OUTPUTS GENERAL	AES digital outputs					
	QTY mixed programme outputs					GS-BC2 = 2 GS-BC2A = 1
	QTY direct mic outputs	1	1	1	2 (1 for each input)	GS-BC2A = 1
	Passive loop through outputs					
	Local record output					
PROGRAMME OUTPUTS TECHNICAL	Output Balancing	Transformer	Transformer	Transformer	Electronic	Electronic
	Output Impedance	50 Ohms	50 Ohms	50 Ohms	50 Ohms	50 Ohms
	Equivalent Input Noise (22-22kHz RMS gain @ max) input terminated 300 ohms	119dBu	121dBu	124dBu	125dBu	118dBu
	Frequency Response 50Hz to 20kHz	<-1dBu		<-1dBu	-3dB (30Hz to 20kHz)	-3dB (30Hz to 20kHz)
	Maximum output level	+8.7dBu	+18dBu (limiter off) +12.5dBu (limiter on)	+10.5dBu	+12.5dBu	+14.5dBu
	THD + NOISE (50Hz to 20kHz) @ +8dBu	<0.25%	<0.2%	<0.2%	<0.2%	<0.2%
	Selectable -20dB output level (provides extra 20 dB headroom)		-10dB out switch			
TALKBACK OUTPUTS	AES digital outputs					
	QTY talkback outputs	1	0 to X depending on model ordered	1 on CU10 and 5 on CU10A	2 (1 for each commentator)	2
	Output Balancing	Transformer	Transformer	Transformer CU10 and Electronic on CU10A	Electronic	Electronic
	Adjustable Output Level					
	Internal TB between commentators					Spotter function allows Mic 2 to talk to Comm 1
Talkback switch operation	User Programmable	User Programmable	User Programmable	Fixed	Fixed	
HEADPHONE CIRCUITS	QTY headphone amplifiers	1	1	1	2	2
	QTY 6.35mm outputs	1	1	1	2	2
	QTY external inputs	2	1 + X depending on model ordered	2	4 (2 shared 1 unique for each commentator)	4
	AES digital inputs available					
	Input balancing	Electronic	Transformer	Electronic		Transformer
	Input impedance	>80kOhms	=>15kohms	>100kOhms	>30kOhms	>20kOhms
	Sidetone own mic to own headphone	Fixed @ -10dBu	Front Panel Full Size Pot	Front Panel Switch @ Fixed -6Bu		Front Panel Full Size Pot
	Gain range of headphone pots (with end stops on)	-20 to +10dBu	-20 to +10dBu	-20 to +10dBu	-20 to +6dBu	-20 to +10dBu
	Endstops (to prevent complete attenuation of signal)	Fixed on (can be factory removed)	Internal solder links to turn endstop off	Fixed on (can be factory removed)	Fixed on (can be factory removed)	Fixed on (can be factory removed)
	Headphone impedance	200 – 2000 Ohms	200 – 2000 Ohms	200 – 2000 Ohms	200 – 2000 Ohms	200 – 2000 Ohms
	Left/Both/Right source routing	Yes	Yes	Yes	Separate pots for L/R ears	
Max output level (into 600 Ohms)	+18dB	+18dB	+18dB	+18dB	+18dB	
PPM	QTY LEDs	4	8	4		
	dB per LED + (nominal range)	6 (-12 to +6)	4 (-16 to +12)	6 (-12 to +6)		
CONNECTIVITY	GPIO		Optional		Optional	Optional
	Link					
PHYSICAL/ POWERING/ OTHER	Size W x D x H in mm	153 x 103 x 43	160 x 222 x 92 then + 31mm per extra TB	94 x 110 x 100	203 x 228 x 92	247 x 247 x 109
	Weight Kg	0.355Kg inc battery	1.4Kg then + 0.25Kg per extra TB	0.88Kg	1.78Kg	
	AC mains voltage range		100 – 240VAC 50/60Hz		100 – 240VAC 50/60Hz	100 – 240VAC 50/60Hz
	Other Power Input	12 to 20 V	10 – 18Volts 4 pin XLR	12 to 20 V		
	OTHER	Powered by 1 x PP3		Powered by 4 x AA		Internal rechargables for backup

		GS-OC26/24	GS-OC33/34 (1 channel)	GDC-6432	GS-GC21/19/22	GS-CCU002/CU006
MICROPHONE INPUTS GENERAL	QTY Mic/Line inputs on XLR	1	1	1 + 2	4 + Producer	
	QTY Mic inputs on XLR	2	2	3		4
	Qty unbalanced 3.5mm inputs			3 (2 on rear)		
	Mic ON switch configuration	Fixed	Fixed	Config+	Fixed	Fixed
MICROPHONE INPUTS TECHNICAL	Mic input gain range	47 to 63 automatics or fixed @ 57dB	Switched 49 or 59dB	10 to 65dB in 1dB steps	52 to 66dB	42 to 70dB
	Phantom power input gain range	34 to 51 automatics or fixed @ 44dB	Switched 35 or 45dB	10 to 65dB in 1dB steps		
	Line input gain range	-8 to +8 automatics or fixed @ 0dB	Switched -10 or 0dB	0dB	9 to 5dB	
	Headroom (No dB above line up before clipping)	38dB	30dB above maximum gain	36dB (analogue equivalent)	35dB	40dB
	Input impedance	1K2 Mic Line >50K	1K2 Mic Line >50K	1K2 Mic Line >50K	1K2	1K to 1K5
	Compressor/ Limiter (dB IN : dB OUT)	Complex micro controlled	Complex	Digital & User Configurable	Threshold +5dB (4:1 to 5:1)	Threshold +3dBu (4:1)
	Phantom Power Voltage	12V	12V	48V		
	Band Pass Filter -3dB Points Filters are 12dB per octave	25Hz & 12kHz	50Hz & 12kHz		45Hz & 16kHz 12dB/ Octave	40Hz & 15kHz 12dB/ Octave
PROGRAMME OUTPUTS GENERAL	AES digital outputs			Maximum 16 @ 48kHz		
	QTY mixed programme outputs	1	1	Configurable 0 – 16	2-Comms can be routed to either or both mixes	1
	QTY direct mic outputs	3	3	Configurable 0 – 16	4	4
	Passive loop through outputs					
	Local record output		PGM out on GSOC34	Configurable		
PROGRAMME OUTPUTS TECHNICAL	Output Balancing	Electronic	Transformer	AES – Transformer Analogue – Electronic	Electronic	Electronic
	Output Impedance	50-60 ohms	<65 ohms	AES – 110 Ohms Analogue 50 – 60 ohms	50 Ohms	50 Ohms
	Equivalent Input Noise (22-22kHz RMS gain @ max) input terminated 300 ohms	120dBu	113dBu	125dBu	119dBu	124dBu
	Frequency Response 50Hz to 20kHz	+1 -2dB 40Hz to 11kHz	+/- 2dB 40Hz to 10kHz	+/- 1dB 40Hz to 22kHz	-1dB 45Hz to 16kHz	-1dB 40Hz to 15kHz
	Maximum output level	>+12dBu	>+12dBu	0dBfs (+18dBu)	+16dBu	
	THD + NOISE (50Hz to 20kHz) @ +8dBu	<0.4% 300Hz to 3kHz	0.3% @ 1kHz	0.05%	<0.25%	<0.35%
Selectable -20dB output level (provides extra 20 dB headroom)		Preset pot -9 to +6dBu	Configurable			
TALKBACK OUTPUTS	AES digital outputs			Maximum 16 @ 48kHz		
	QTY talkback outputs	1	1 + 1 internal	Maximum 16 analogue	3(2) + 3 internal	4
	Output Balancing	Electronic	Electronic	AES – Transformer Analogue – Electronic	Electronic	Electronic
	Adjustable Output Level		Preset pot -9 to +6dBu	Configurable		
	Internal TB between commentators	Yes via Coord	Yes via Coord	Configurable	Yes	Yes
Talkback switch operation	Fixed	Fixed	Config+	Fixed	Fixed	
HEADPHONE CIRCUITS	QTY headphone amplifiers	3	3	6	4 + Producer	4
	QTY 6.35mm outputs	3	3	3	8 + Producer	4
	QTY external inputs		8 (only 6 routed to h'phones)	External up to 16 Internal up to 48	8 (6 to any comm)	8
	AES digital inputs available			Up to 16		
	Input balancing	Electronic	Electronic	AES – Transformer Analogue – Electronic	Electronic	Transformer
	Input impedance	>50kohms	>50kohms	AES – 110 Ohms Analogue >50kohms	>50kohms	>15kohms
	Sidetone own mic to own headphone	Via PGM Mix circuit	Via PGM Mix circuit	Configurable	Via PGM Mix circuit	Via PGM Mix circuit
	Gain range of headphone pots (with end stops on)	-20 to +10dBu	-20 to +10dBu	Configurable	-20 to +9dBu	-20 to +10dBu
	Endstops (to prevent complete attenuation of signal)	Internal solder links to turn endstop off	Internal solder links to turn endstop off	Configurable	Fixed on (can be factory removed)	Internal solder links to turn endstop off
	Headphone impedance	100 – 2000 ohms	100 – 2000 ohms	100 – 2000 ohms	100 – 2000 ohms	100 – 2000 ohms
	Left/Both/Right source routing	Yes	Yes	Configurable	Yes	
Max output level (into 600 Ohms)	+18dB	+18dB	+18dB		+18dB	
PPM	QTY LEDs	14	8 on channel 15 on main	8 Channel PF 2 x 14 Main Monitors	14	28
	dB per LED + (nominal range)	2 (-14 to +12)	CH is 4 (-16 to +12) MAIN is 2 (-14 to +14)	Configurable	2 (-14 to +12)	1 (-14 to +13)
CONNECTIVITY	GPIO			8 Configurable		
	Link	COAX Analogue time division multiplex	COAX Improved analogue time division multiplex	Digital 24bit Coax/ Ethernet	Bi-directional analogue audio, remote data mix	Multiwire analogue on DEF32 (MIL) Connectors
PHYSICAL/ POWERING/ OTHER	Size W x D x H in mm	GSOC24 235 x 227 x 91 GSOC26 1RU 290mm	GSOC34 235 x 235 x 90	dCU 259 x 279 x 108 dCCU 1RU 272mm	GSGC19 140 x 120 x 80 GSGC21 1RU 285mm	GSCU006 183 x 242 x 92 GSCCU002 3RU 305mm
	Weight Kg	GSOC24 2.1Kg	GSOC34 2.1Kg	DCU 2.1Kg	GSGC19 0.66Kg	GSCU006 1.5Kg
	AC mains voltage range	110 – 240VAC 47-63 Hz	100 – 250VAC 47-63 Hz	100 – 240VAC 50/60Hz	100 – 240VAC 50/60Hz	90 – 240VAC 50/60Hz
	DC Power Input	Box powered by base station over COAX	Box powered by base station over COAX	Box powered by base station fully PDE safe	Boxes powered by base station over CAT5	Boxes powered by base station over DEF32
	OTHER	Line ident & setup tone	Line ident & setup tone PPM is PPM / VU	It can't make tea but does EVERYTHING else!	Line ident & setup tone	

		EXPRESS BOX	GS-CU001	TALENT BOX		GSGX3
MICROPHONE INPUTS GENERAL	QTY Mic/Line inputs on XLR		3	3	Boxes can be linked to up QTY	Up to 16
	QTY Mic inputs on XLR	2				
	Qty unbalanced 3.5mm inputs			1		
	Mic ON switch configuration	User Programmable	Config+	Config+		Fader
MICROPHONE INPUTS TECHNICAL	Mic input gain range	tbc	50 to 70dB	50 to 70dB	Remote control via web page	Overall input gain of 70 to -10dB
	Phantom power input gain range	tbc	25 to 45dB	25 to 45dB		
	Line input gain range		-10 to +10dB	-10 to +10dB		
	Headroom (No dB above line up before clipping)	tbc	30dB with limiter (50dB with -20 O/P)	tbc		36dB
	Input impedance	1K5	1K1	tbc		
	Compressor/ Limiter	tbc	Very complex ratio 10:4, 10:7, 10:3 & 4:2.5	Digitally controled		Fully featured adjustable module(s)
	Phantom Power Voltage	48V	12V Standard 48V No cost option	12V & 48V		48V
	Band Pass Filter -3dB Points Filters are 12dB per octave	Yes	Selectable when on 80 Hz & 12.5kHz	Selectable		
PROGRAMME OUTPUTS GENERAL	AES digital outputs			Optional (internal electronics are digital)		
	QTY mixed programme outputs	1	1	2		3 (A + B and Mono)
	QTY direct mic outputs	2	3	3		Up to 16
	Passive loop through outputs		On GS-CU001E			
	Local record output		On 3.5mm jack	On 3.5mm jack		
PROGRAMME OUTPUTS TECHNICAL	Output Balancing	Electronic	Electronic & transformer versions available	Electronic & transformer versions available		Mono – Transformer All other – Electronic
	Output Impedance	50 Ohms	50 Ohms	50 Ohms		50 Ohms
	Equivalent Input Noise (22-22kHz RMS gain @ max) input terminated 300ohms	tbc	126dBu	tbc		125dBu
	Frequency Response 50Hz to 20kHz	tbc	<-1dB (40Hz to 16kHz) Filter off	tbc		-1dB 25Hz to 20kHz
	Maximum output level	tbc	+20dBu (limiter off) +11dBu (limiter on)	tbc		+25dB
	THD + NOISE (50Hz to 20kHz) @ +8dBu	tbc	<0.2%	tbc		<0.1%
	Selectable -20dB output level (provides extra 20 dB headroom)		Yes	Yes		
TALKBACK OUTPUTS	AES digital outputs			Optional (internal electronics are digital)		
	QTY talkback outputs	2	3	3		
	Output Balancing	Electronic	Electronic & transformer versions available	Electronic & transformer versions available		
	Adjustable Output Level			Yes		
	Internal TB between commentators		Versions D, E, L & M			
	Talkback switch operation	User Programmable	Config+	Config+		
HEADPHONE CIRCUITS	QTY headphone amplifiers	2	2	3		up to 17
	QTY 6.35mm outputs	2	4	3		up to 17
	QTY external inputs	4	5 (9 on versions E, G, L, M)	5 three with audio present indication		2 + 1 per Channel
	AES digital inputs available			Optional (internal electronics are digital)		
	Input balancing	Electronic	Electronic & transformer versions available	Electronic & transformer versions available		Electronic
	Input impedance	tbc		tbc		=>15kohms
	Sidetone own mic to own headphone	Front Panel Full Size Pot	Yes see brochure	Front Panel Full Size Pot		Selectable
	Gain range of headphone pots (with end stops on)	-20 to +10dBu	-20 to +10dBu	-20 to +10dBu		-60 to +10dBu
	Endstops (to prevent complete attenuation of signal)	Internal solder links to turn endstop on	Internal solder links to turn endstop on	Digitally set by menu		
	Headphone impedance	100 – 2000 Ohms	100 – 2000 Ohms	100 – 2000 Ohms		100 – 2000 Ohms
	Left/Both/Right source routing		Yes	Yes digitally controlled		
Max output level (into 600 Ohms)		+19dBu	tbc		+18dB	
PPM	QTY LEDs	7	7	7		14
	dB per LED + (range)	4 (-12 to +12)	4 (-12 to +12)	4 (-12 to +12)		2 (-14 to +12)
CONNECTIVITY	GPIO		Optional	Yes configurable		
	Link			CM bus to join up 10 comms coxes		External Producers box
PHYSICAL/ POWERING/ OTHER	Size W x D x H in mm	220 x 250 x 95	Version B 277 x 266 x 105			150 + 30mm per CH x 380 x 150
	Weight Kg	1.4Kg	Version B all transformers 2.96Kg			
	AC mains voltage range	100 – 240VAC 50/60Hz	100 – 240VAC 50/60Hz			100 – 240VAC 50/60Hz
	DC Power Input		9 – 18Volts 4 pin XLR			9 – 18Volts 4 pin XLR
	OTHER			Line ident & setup tone		Line ident & ISDN