SALZBRENNER
media

nIO xcel

Datasheet

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1 Latency

	LINE IN	MIC IN	AES IN SRC	AES IN transparrent
LINE OUT	83 Samples (+/- 1 Sample)	66 Samples (+/- 1 Sample)	98 Samples (+/- 1 Sample)	
AES OUT	38 Samples (+/- 1 Sample)	23 Samples (+/- 1 Sample)	53 Samples (+/- 1 Sample)	4 Samples

2 Dimensions & weight

	length	width	height	total weight	weight device only	Remarks
NIO xcel 1101	380 mm	340 mm	120 mm	2200 g	1800 g	-
NIO xcel 1102	380 mm	340 mm	120 mm	2200 g	1800 g	-
NIO xcel 1201	380 mm	340 mm	120 mm	2300 g	1900 g	-
NIO xcel 1202	380 mm	340 mm	120 mm	2250 g	1850 g	-
RM 1101	420 mm	130 mm	50 mm	550 g	350 g	Single Rackmount Kit
RM 1102	420 mm	130 mm	50 mm	550 g	350 g	Single Rackmount Kit
RM 1201	420 mm	130 mm	50 mm	550 g	350 g	Single Rackmount Kit
RM 1202	420 mm	130 mm	50 mm	550 g	350 g	Single Rackmount Kit
RM dual	225 mm	170 mm	6 mm	50 g	35 g	Dual Rackmount Kit

3 Microphone Input

Parameter	Value	Condition
Input level	+24dBu	0dBFS 1kHz (-100.5dB THD+N @ +23.8dBu)
Input impedance	5.56 kOhm	
Idle-channel Noise	-150dBFS (typ)	BW = 20Hz...20kHz, unweighted, 200Ohm back-termination
	-153dBFS (typ)	BW = 20Hz...20kHz, unweighted, 0Ohm back-termination
	-148dBFS CCIR-R.M.S. (typ)	BW = 20Hz...20kHz, CCIR-ARM weighted (CCIR-2k), 200Ohm back-termination
	-152dBFS CCIR-R.M.S. (typ)	BW = 20Hz...20kHz, CCIR-ARM weighted (CCIR-2k), 0Ohm back-termination
	-152dBFS(A) (typ)	BW = 20Hz...20kHz, A-weighted, 200Ohm back-termination
	-155dBFS(A) (typ)	BW = 20Hz...20kHz, A-weighted, 0Ohm back-termination
Frequency response	20Hz ... 22kHz (+0.0dB, -0.02dB)	0dBu, Fs=48kHz
	20Hz ... 40kHz (+0.0dB, -0.02dB)	0dBu, Fs=96kHz
SNR	> 148dB CCIR-R.M.S.	0dBFS 1kHz, CCIR-ARM weighted (CCIR-2k), 200Ohm back-termination
	> 152dB(A)	0dBFS 1kHz, A-weighted, 200Ohm back-termination
THD+N	< -98dB (<0.0012%)	1dBFS 1kHz Sine, BW = 20Hz..20kHz
	< -97dB (<0.0014%)	-1dBFS 20Hz..20kHz, BW = 20Hz..20kHz
	< -96dB (<0.002%)	-9dBFS 20Hz..20kHz , BW= 20Hz..20kHz
	< -98dB (<0.0012%)	-20dBFS 1kHz Sine, BW = 20Hz..20kHz
	< -97dB (<0.0014%)	-20dBFS 20Hz..20kHz, BW = 20Hz..20kHz
Interchannel Crosstalk attenuation Input to Input	> 150dBr	+4dBu (-20dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 132dBr	+4dBu (-20dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
Crosstalk - Output to Input leakage	> 146dBr	+4dBu (-20dBFS) 1kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 133dBr	+4dBu (-20dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 141dBr	24dBu (0dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 143dBr	24dBu (0dBFS) 1kHz, 1/3 oct bandpass, 200Ohm back-termination
CMRR	121dB (typ.)	1kHz, 0dBFS, BW = 20Hz..20kHz
	100dB (typ.)	0dBFS 20Hz...20kHz, BW = 20Hz..20kHz

4 Line Input

Parameter	Value @15dBu Input	Value @24dBu Input	Condition
Input Level	+15dBu	+24dBu	+15dB: 0dBFS 1kHz (0,0014% THD+N @ +14.7dBu) +24dB: 0dBFS 1kHz (-102dB THD+N @ +23.8dBu)
Input impedance	47 kOhm	47 kOhm	
Idle-channel noise	-113dBFS (typ)	-118dBFS (typ)	BW = 20Hz...20kHz, unweighted, 200Ohm back-termination
	-112dBFS CCIR-R.M.S. (typ)	-116dBFS CCIR-R.M.S. (typ)	BW = 20Hz...20kHz, CCIR-ARM weighted (CCIR-2k), 200Ohm back-termination
	-115dBFS (A) (typ)	-120dBFS (A) (typ)	BW = 20Hz...20kHz, A-weighted, 200Ohm back-termination
Frequency response	20Hz ... 22kHz (+0.0dB, -0.05dB)	20Hz ... 22kHz (+0.0dB, -0.07dB)	0dBu, Fs=48kHz
	20Hz ... 40kHz (+0.0dB, -0.18dB)	20Hz ... 40kHz (+0.0dB, -0.2dB)	0dBu, Fs=96kHz
SNR	> 112dB CCIR-R.M.S.	> 116dB CCIR-R.M.S.	0dBFS 1kHz, CCIR-ARM weighted (CCIR-2k), 200Ohm back-termination
	> 115dB(A)	> 120dB(A)	0dBFS 1kHz, A-weighted, 200Ohm back-termination
THD+N	< -97dB (<0.0014%)	< -100dB (<0.001%)	-1dBFS 1kHz Sine, BW = 20Hz..20kHz
	< -97dB (<0.0014%)	< -95dB (<0.0018%)	-1dBFS 20Hz..20kHz, BW = 20Hz..20kHz
	< -95dB (<0.0014%)	< -95dB (<0.0018%)	-9dBFS 20Hz..20kHz, BW= 20Hz..20kHz
	< -90.4dB (<0.003%)	< -95dB (<0.0018%)	-20dBFS 1kHz, BW= 20Hz..20kHz
	< -88dB (<0.0039%)	< -92dB (<0.0025%)	-20dBFS 20Hz..20kHz, BW= 20Hz..20kHz
Crosstalk – Output to Input leakage	> 110dBr	> 109dBr	+4dBu (-20dBFS) 1kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 108dBr	> 105dBr	+4dBu (-20dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 108dBr	> 106dBr	24dBu (0dBFS) 20Hz...20kHz, 1/3 oct bandpass, 200Ohm back-termination
	> 115dBr	> 116dBr	24dBu (0dBFS) 1kHz, 1/3 oct bandpass, 200Ohm back-termination
CMRR	98dB (typ.)	98dB (typ.)	1kHz, 0dBFS, BW = 20Hz..20kHz
	91dB (typ.)	89dB (typ.)	0dBFS 20Hz...20kHz, BW = 20Hz..20kHz

5 Line Output

Parameter	Value @15dBu Output	Value @24dBu Output	Condition
Output Level	+15dBu	+24dBu	0dB FS, 1kHz Sine, 100kOhm load
	+15dBu	+24dBu	0dB FS, 1kHz Sine, 600Ohm load
Output Impedance	0 Ohm (typ.)	0 Ohm (typ.)	BW = 20Hz...20kHz
Idle-channel noise	-95dBu (typ.)	-93dBu (typ.)	100kOhm load, unweighted
	-94.5 dBu CCIR-R.M.S	-92 dBu CCIR-R.M.S	BW = 20Hz...20kHz, 100kOhm load, CCIR-ARM weighted (CCIR-2k)
	-98dBu(A) (typ.)	-95dBu(A) (typ.)	100kOhm load, A-Weighted
Frequency response	20Hz ... 22kHz (+0dB, -0.2dB)	20Hz ... 22kHz (+0dB, -0.2dB)	-20dBFS, 100kOhm load, Fs=48kHz
	20Hz ... 40kHz (+0dB, -1.2dB)	20Hz ... 40kHz (+0dB, -1.2dB)	-20dBFS, 100kOhm load, Fs=96kHz
SNR	> 110dB CCIR-R.M.S.	> 116dB CCIR-R.M.S.	0dBFS, 1kHz, 100kOhm load, CCIR-ARM weighted
	> 113.5dB(A)	> 119.5dB(A)	0dBFS, 1kHz, 100kOhm load, A-weighted
THD+N	< -102.5dB (0.00075%)	< -98dB (0.0012%)	-1dBFS, 1kHz, 100kOhm load, BW= 20Hz.. 20kHz
	< -102dB (0.0008%)	< -88dB (0.0039%)	-1dBFS, 20Hz...20kHz, 100kOhm load, BW= 20Hz..20kHz
	< -91dB (0.0028%)	< -96.5dB (0.0015%)	-20dBFS, 1kHz, 100kOhm load, BW= 20Hz.. 20kHz
	< -90dB (0.003%)	< -94dB (0.002%)	-20dBFS, 20Hz...20kHz, 100kOhm load, BW= 20Hz..20kHz
Interchannel crosstalk Output to Output	< -98dBr	< -103dBr	-20dBFS 20Hz...20kHz,1/3 oct bandpass, 2kOhm load
	< -109dBr	< -116dBr	-20dBFS 1kHz, 1/3 oct bandpass, 100kOhm load