RamCAT & digital audio - system cable audio networks

- 2 data cables CAT5e - heavy duty
- SF/UTP (overall foil + braid shield)
- 2 digital audio cables, 110 Ohm, AWG 24
- EtherSound™ tested by Digigram up to 120 m

PVC

This system cable with 2x CAT5 and 2x AES/EBU was developed for mobile audio networks (e.g., for the connection of Stage Racks with the Allen&Heath iLive mixers which need 2 Cat5 cables). As a 2-fold network cable element the especially robust, double shielded and windable RC5SB is used. Thanks to solid AWG24 conductors it allows EtherSound™ up to 120 metres. The suitability for the mobile use is reached by the special construction with a cross-shaped twisting element. Two additional digital audio cables (AWG 24, 110 Ohm) allow additional functions such as Intercom, monitoring, serial remote control etc.

hybrid
twisting	2x data + 2x audio
taping	fleece
outer jacket	PVC
overall diameter	16.4 mm
min. bending radius	10x outer diameter
working temperature	-20°C / +70°C

audio cable
cond. construction	stranded tinned copper, 7 x 0.20 mm (AWG 24/7)
cond. cross section	0.22 mm²
insulation	Foam-Skin PE, red & blue
shielding	tinned stranded drain wire + AL/PETP foil
outer jacket	PVC, grey, numbered, Ø 4.0 mm
conductor resistance	< 85 Ω/km
capacitance	47 pF/m
characteristic impedance	110 Ω
attenuation [dB/100m]	
1 MHz	2.3
3 MHz	3.9
10 MHz	6.9
insulation resistance	> 10 GΩ x km
test voltage	
cond. / cond.	1200 V
cond. / shield	500 V

data cable
conductor	solid bare copper wire, Ø 0.52 mm (AWG 24/1)
core insulation	Foam-Skin PE
core stranding	2 cores twisted to a pair
cable stranding	4 pairs twisted within a central PE cross
overall shield	AL/PET foil + tinned copper braid (80% coverage)
outer jacket	PVC
outer diameter	6.6 mm
conductor resistance	< 85 Ω/km
operating capacity	48 pF/m
characteristic impedance	100 Ω ± 15%
signal speed	0.76 c
propagation delay	4.9 nsec/m
delay skew	0.25 nsec/m

Frequency [MHz]	attenuation [dB/100m]		Next [dB]		ACR [dB/100m]		RL [db]	
	Typ.	MAX CAT5e	Typ.	MIN CAT5e	Typ.	MIN CAT5e	Typ.	MIN CAT5e
1	2.0	2.1	85	65	83.0	62.9	26	-
4	3.9	4.0	74	56	70.1	52.0	28	23.0
10	6.1	6.3	70	50	63.9	43.7	30	25.0
16	7.8	8.0	68	47	60.2	39.0	30	25.0
20	8.7	9.0	63	46	54.3	37.0	30	25.0
31.25	10.9	11.4	58	43	47.1	31.6	28	23.6
62.5	15.9	16.5	55	48	39.1	31.5	26	21.5
100	20.6	21.3	52	35	31.4	13.7	24	20.1
155	24.8	-	49	-	24.2	-	21	-
200	29.3	-	46	-	16.7	-	19	-

order code	outer jacket	colour	weight kg	standard lengths m
RC5-SB2A	PVC	black	0.29	50 / 100 / 300

technical specifications are subject to change