



mobile hybrid cable

2 x HD-SDI video + RamCAT5-solid

- video cable suitable for mobile HD-SDI due to special construction (stranded inner conductor + double braid shield)
- CAT5e data cable suitable for gigabit Ethernet 1 GBase-T

PVC

UHD

6GSDI

CAT

5E

We often receive enormously wide-ranging product requests, particularly in the field of hybrid cables. In fact, our HV2RC5SB1 is the result of just such a development process. The cable combines two VD125LPS video lines and a RC5-SB1X RamCAT 5 line. Typical areas of use are with PTZ and dome cameras, requiring video out and return lines (or sync) for the video signal plus a signal conductor for remote control and POE (Power over Ethernet) power supply. The VD125LPS video cable has all the features that are essential for meeting modern needs: a double braided shield of tinned copper delivers optimum shielding at over 95% coverage, while the low attenuation enables the cable to be used for HD-SDI applications over distances of up to 100 m. The RC5-SB1X RamCAT 5-solid cable is also a top player; its four twisted-pair inner conductors have a PE cross separator for extra stability, plus carefully matched lay lengths offering outstanding crosstalk attenuation. The double shield (braided and foil) virtually eliminates external interference. The HV2RC5SB1 cable, with its sophisticated twisted-core design (100% back-twist), combines all the advantages of the individual cables used to make it up, and is finished with a rugged PVC jacket that offers excellent resistance to mechanical strain.

hybrid

twisting	2x video + 1x RamCAT5-solid
taping	fleece
outer jacket	PVC
overall diameter	20.0 mm
working temperature	-20°C / +70°C

video cable

type	1.2L/4.8D
inner conductor	stranded tinned copper, 7 x 0.40 mm
insulation	Foam-Skin PE, gas injected, Ø 4.8 mm
shielding	2x tinned copper braid, >95% coverage
outer jacket	PUR, Ø 7.1 mm
characteristic impedance	75 Ω
capacity	54 pF/m
velocity of propagation	86 %
conductor resistance	23 Ω/km
shield resistance	6.3 Ω/km
nom. attenuation [dB/100m]	
1 MHz	0.4
5 MHz	1.3
10 MHz	2.0
100 MHz	7.1
135 MHz	8.3
270 MHz	11.9
750 MHz	20.5
1000 MHz	24.0
1500 MHz	30.4
3000 MHz	47.4
return loss	
50 - 300 MHz	>25 dB
300 - 3000 MHz	>20 dB

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
twisting	4 pairs twisted within a central PE cross
overall shield	AL/PET foil + tinned copper braid (80% coverage)
outer jacket	PUR
outer diameter	7.1 mm
conductor resistance	< 85 Ω/km
mutual capacitance	48 pF/m
characteristic impedance	100 Ω ± 15%
signal speed	0.76 c
propagation delay	4.9 ns/100m @ 100 MHz
delay skew	0.25 ns/100m @ 100 MHz

frequency [MHz]	attenuation [dB/100m]		Next [dB]		ACR [dB/100m]		RL [dB]	
	typical	CAT5e MAX	typical	CAT5e MIN	typical	CAT5e MIN	typical	CAT5e MIN
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	included cable types	outer jacket	outer Ø mm	cable color	weight kg/m
HV2RC5SB1	2x HD-SDI video + 1x CAT5e	PVC	20.0	black	0.42

technical specifications are subject to change