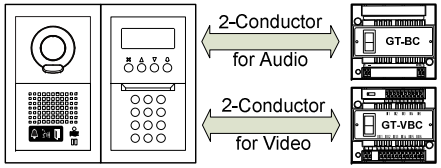
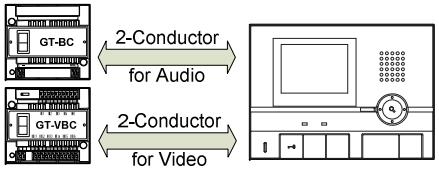
GT Series Multi-Tenant

Wire Distance Chart For Alternative Wire Types

		PE Insulated (Polyethylene) (Preferred Wire Type)		PVC Insulated (Higher capacitance level than PE)	
		Aiphone # 872002	Aiphone # 871802		
		20AWG	18AWG	24AWG	18AWG
Entrance /GT-MK to Bus Control Units 	R1/R2	980'	-	330'	650'
	B1/B2	-	980'	330'	490'
Power supply wiring not shown					
Bus Control Units to Tenant Stations 	R1/R2	980'	-	330'	650'
	B1/B2	-	490'	330'	330'
Power supply wiring for GT-2C not shown					
Maximum cumulative wiring distance (Sum of all audio (R1/R2) wire runs in the system.)	Standard System	8,200'		5,400'	6,560'
	Expanded System	8200'		5,400'	6,560'

CAT-5e or CAT-6
(Distances shown reflect either using a pair as 2 conductors or using a pair twisted together as one conductor.)

	Grn/Grn Wht pair	Blu/Blu Wht pair	Org/Org Wht pair	Brn/Brn Wht pair
R1/R2	-	-	330'	-
R1 (audio)	-	-	650'	
R2 (audio)	-	-		650'
B1/B2	-	-	-	330'
B1 (video)	650'		-	-
B2 (video)		650'	-	-
R1/R2	-	-	330'	-
R1 (audio)	-	-	650'	
R2 (audio)	-	-		650'
B1/B2	-	-	-	330'
B1 (video)	330'*		-	-
B2 (video)		330'*	-	-
Standard	-	-	5,400'	-
Expanded	-	-	6,560'	
	-	-		

This information is a guide to determine if existing wire in a building can be used for the GT system.

The maximum wire distance specifications published in the literature for the GT system are based on PE insulated (low capacitance), non-shielded, 20 or 18AWG wire, and for full station capacity.

Smaller gauge and/or higher capacitance wire can be used for smaller systems and at shorter distances.

For complete distance specifications on alternative cables, see attached charts.

* To extend video distance to tenant stations, add GT-VBC's. See bottom of page 8 in Installation Manual.

= CAT-5e, one pair used for 2 conductors
(R1 = Org, R2 = Org Wht. B1 = Brn, B2 = Brn Wht.)

= CAT-5e, using one pair for each conductor for maximum distance.
(R1 = Org/Org Wht pair, R2 = Brn/Brn Wht pair)

Color code designations are based on twist rate of each pair.

Aiphone Corporation
1700 130th Ave NE
Bellevue, WA 98005
www.aiphone.com
(800) 692-0200

Wiring distance with PVC Insulated Cable on GT Series System

PVC (Polyvinyl chloride) Insulation on individual conductors

	Wire Gauge PVC (Polyvinyl chloride)		
	24AWG	20AWG	18AWG
GT-BC - DP	6'	16'	16'
Entrance station - DP	330'	650'	650'
Entrance station - GT-VBC	330'	490'	490'
GT-MK - DP	330'	650'	650'
DP - farthest residential station (except GT-2H)	330'	650'	650'
GT-VBC - farthest residential station (except GT-2H)	330'	330'	330'
GT-VBC(STD) - GT-VBC(EXP)	330'	330'	330'
GT-BC - power supply	6'	16'	16'
GT-VBC - power supply	6'	16'	16'
Entrance station - power supply	330'	650'	650'
GT-MK - power supply	330'	650'	650'
Door station - GT-2C	100'	260'	260'
GT-2CL - farthest GT-2H	130'	260'	260'
GT-2CL - power supply	50'	130'	165'
GT-2HL - power supply	100'	260'	330'
GT-BCX - power supply	6'	16'	16'
GT-BCX - GT-BC	330'	650'	650'
GT-VBX - GT-VBC(EXP)	330'	490'	490'
Entrance station - GT-BCX	490'	490'	490'
Entrance station - GT-VBX	330'	650'	650'
Standard system total wiring distance *1	5400'	6560'	6560'
Expanded system total wiring distance per	5400'	6560'	6560'

*1 The trunk lengths from a door station and from GT-2H to a GT-2C are not included.

DP: Distribution Point

Wiring distance with CAT-5e Cable on GT Series System

CAT-5e Cable (24AWG UTP4) 4 Unshielded Twisted Pairs

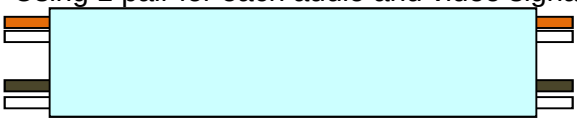
	1 pair = 2 cond	2 pair = 2 cond	4 pair = 2 cond
	1Pr (24AWG)	2Pr (22AWG)	4Pr (20AWG)
GT-BC - DP	3'	13'	16'
Entrance station - DP	330'	650'	980'
Entrance station - GT-VBC	330'	650'	980'
GT-MK - DP	330'	650'	980'
DP - farthest residential station (except GT-2H)	330'	650'	980'
GT-VBC - farthest residential station (except GT-2H)	330'	490'	490'
GT-VBC(STD) - GT-VBC(EXP)	330'	490'	490'
GT-BC - power supply	3'	13'	16'
GT-VBC - power supply	3'	13'	16'
Entrance station - power supply	330'	650'	980'
GT-MK - power supply	330'	650'	980'
Door station - GT-2C	100'	230'	330'
GT-2CL - farthest GT-2H	130'	260'	330'
GT-2CL - power supply	50'	130'	165'
GT-2HL - power supply	100'	260'	330'
GT-BCX - power supply	-	13'	16'
GT-BCX - GT-BC	330'	650'	980'
GT-VBX - GT-VBC(EXP)	490'	490'	490'
Entrance station - GT-BCX	650'	980'	980'
Entrance station - GT-VBX	330'	650'	980'
Standard system total wiring distance *1	5400'	6560'	8200'
Expanded system total wiring distance per	5400'	6560'	6560'

*1 The trunk lengths from a door station and from GT-2H to a GT-2C are not included.

DP: Distribution Point

*2 For CAT-5e, use each pair of wires as a single conductor.

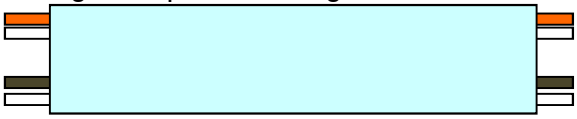
Using 1 pair for each audio and video signal:



R1 R2 for audio

B1 B2 for video

Using each pair as a single conductor:

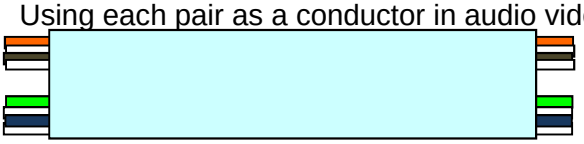


R1

2 Pair = 2 conductors

R2

Using each pair as a conductor in audio video system



R1 R2

4 Pair = 4 conductors

B1 B2