TECHNICAL BULLETIN

[Issue No.] T08-0011 [Page] 1/2
[Title] Notice on T-Branch Connection for CC-Link Communication Speed 625kbps/156kbps [Date of Issue] June '99
[Relevant Models] Open field network CC-Link

Thank you for your continued patronage of the Mitsubishi general-purpose programmable logic controller MELSEC-A/QnA Series.

Whereas

[Details]

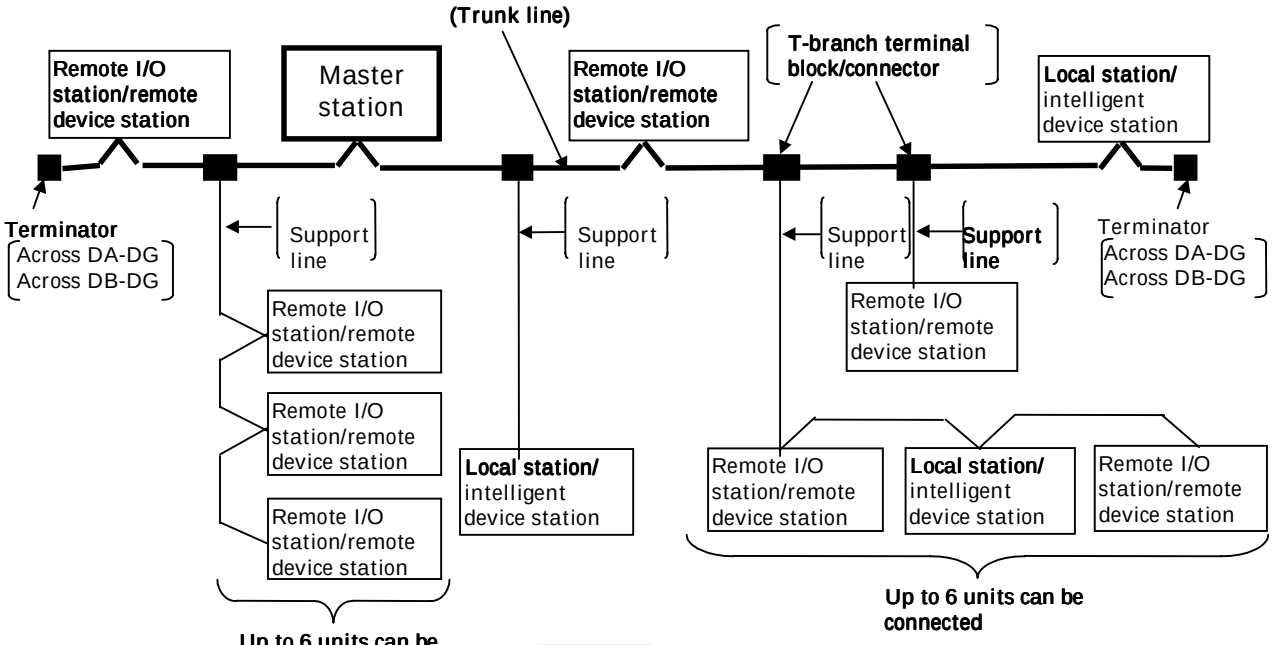
A T-branch connection can now be used for the CC-Link transmission path bus format communication speed of 625kbps/156kbps.

Communication speed	Max. trunk line length (Excluding support lines)	Max. support line length (Per branch)	Total branch length (Total branch support lines)	Max. No. of connected units (Per branch)
625kbps	100m	8m	50m	6 units
156kbps	500m	8m	200m	6 units

- Only the CC-Link dedicated cable can be used.*
- Connect a 110Ω, 1/2W terminator across DA-DG and DB-DG at both ends of the trunk line. (The enclosed terminator cannot be used.) *

*: Refer to specifications in section 2.

1. T-branch system configuration

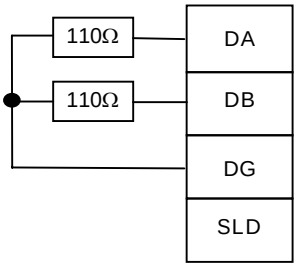


Remarks :

The No. of branch support lines is determined by the support line length per branch and the total branch line length.

2. List of T-branch Communication Specifications

Communication specifications not listed below follow the CC-Link specifications.

Item	Specifications		Remarks
Communication speed	625kbps	156kbps	10M/5M/2.5Mbps cannot be used.
Max. trunk line length	100m	500m	Cable length between terminators. The T-branch cable length is not included.
Max. support line length	8m		Total cable length per branch
Total support line length	50m	200m	Total length of all branch cables
Max. No. of units connected to branch line	6 units/branch		The total No. of connected units follows the CC-Link specifications.
Connection cable	CC-Link dedicated cable (**Example:** FANC-SB, CSFV-SLAB, 100ZCLK-SB-20AWGX3C)		• The CC-Link dedicated high-performance cable cannot be used. (**Example:** FANC-SBH) • Combined use of differing maker cables is not possible. (Refer to the catalog for the makers.)
Terminator (connection method)	110Ω, 1/2W × 4 pcs. (Connect across DA-DG/DB-DG).....Both ends **[Connection and terminator type]**  **[Terminator type]** **(Example)** ERDS1TJ111 Matsushita Electronic Components CO.,Ltd.		• Use a commercially available 110Ω, 1/2W terminator. • The 110Ω, 130Ω resistors enclosed with the master/local modules cannot be used. * The T-branch dedicated terminator is scheduled for sales as an option.
T-branch terminal block/connector	• Terminal block.....Commercially available terminal block • Connector.....FA sensor connector NECA4202 (IEC947-5-2) or equivalent is recommended. (NECA : Nippon Electric Controller Association Standards)		• Avoid peeling the sheath when wiring the cable on the trunk line side.
Max. trunk line length, pitch between T-branches and cable length between stations	**CC-Link dedicated cable (Using 110Ω terminator)**		

Communication speed	Max. trunk line length	T-branch pitch length	Cable length between remote I/O or remote device stations	Cable length between master/local station or intelligent station and previous/next stations
			*1	*2
625kbps	100m	No limits	30cm or more	*1m or more/2m or more
156kbps	500m			

* 1m or more applies when the system is configured only of remote I/O and remote device stations.
2m or more applies when the system is configured with local stations and intelligent device stations.