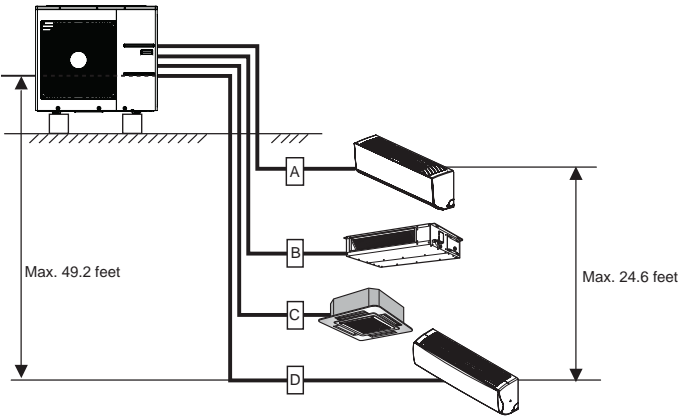# MULTI F PIPING SUMMARY

The following are examples of manual pipe size calculations. Designers are strongly encouraged to use LATS for Multi F systems.

Multi F System

Example shown: LMU36CHV outdoor unit with four (4) indoor units connected.

Model Number	Min Length Each Pipe (ft.)	Maximum Piping Length to each IDU (ft.)				Max. Total Piping Length for Each System (ft.)
		A	B	C	D	
LMU180HV	10	82	82	-	-	164
LMU240HV	10	82	82	82	-	230
LMU30CHV	10	82	82	82	82	246.1
LMU36CHV	10	82	82	82	82	246.1

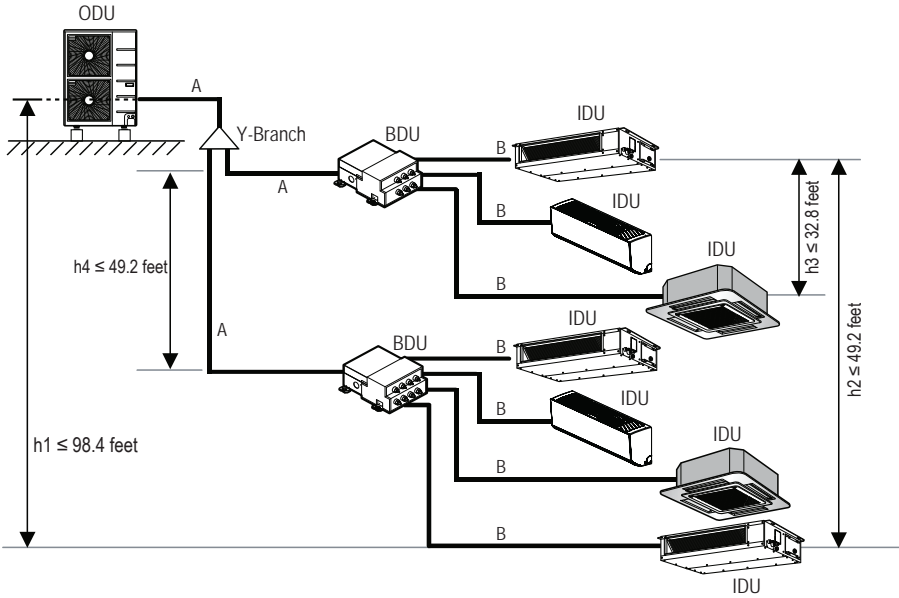Max. 49.2 feet
Max. 24.6 feet

Multi F MAX System

Example: LMU540HV outdoor unit with seven (7) indoor units, and two (2) branch distribution units connected.
A, B, C, D: Pipes from Outdoor Unit to Indoor Unit

	Total System Pipe Length ($\Sigma A + \Sigma B$)		≤475.7 feet
Pipe Length (ELF = Equivalent Length of pipe in Feet)	Main pipe (Outdoor Unit to Branch Distribution Units: ΣA)	Minimum per segment	10 feet
		Maximum	≤180.4 feet
	Total Branch Pipe Length (ΣB)		≤295.3 feet
	Branch pipe (Branch Distribution Units to Indoor Units: ΣB)	Minimum	10 feet
		Maximum	≤49.2 feet
Elevation Differential (All Elevation Limitations are Measured in Actual Feet)	If outdoor unit is above or below indoor unit (h1)		≤98.4 feet
	Between the farthest two indoor units (h2)		≤49.2 feet
	Between branch distribution unit and farthest connected indoor unit(s) (h3)		≤32.8 feet
	Between branch distribution units (h4)		≤49.2 feet

KEY:
ODU: Outdoor Unit
IDU: Indoor Unit
BDU: Branch Distribution Unit (s)
A, B, C, D: Pipes from ODU to IDU

Σ A: Main Pipe
Σ B: Branch Pipe (BDU(s) to IDU(s))

CONTROLS

Individual Control

PREMTC00U   PQWRHQ0FDB   PREMTA000   PREMTBVC0 PREMTBVC1   ZRTBS01

Model	Description
PREMTC00U	Simple Wired Remote Controller
PQWRHQ0FDB	Wireless Remote Controller
PREMTA000	Premium Wired Remote Controller
PREMTBVC0	LG MultiSITE™ Remote Controller
PREMTBVC1	LG MultiSITE™ Remote Controller with Occupancy Sensor
ZRTBS01	Remote Temperature Button Sensor

LG MultiSITE™ Remote Controller Accessories

ZVRCZDWS1   ZVRCZWOC1   ZVRCZCOC1

Model	Description
ZVRCZPWC1	ZigBee Pro Wireless Card
ZVRCZDWS1	Wireless Door & Window Switch
ZVRCZWOC1	Wireless Ceiling Mounted Occupancy Sensor
ZVRCZCOC1	Wireless Wall Mounted Occupancy Sensor

Integration Devices

PBACNBTR0A   PLNWKB100 PQNFB17C2   PMNFP14A1   PDRYCB100 PDRYCB320 PDRYCB400   PZCWRC1 PZCWRCG3   PACP5A000   PACS5A000

Model	Description
PBACNBTR0A	LG MultiSITE™ Communications Manager
PDRYCB100	Simple Dry Contact
PDRYCB320	Dry Contact for Thermostat (5-12VDC, 24VAC)
PDRYCB400	Dry Contact for Economizer/Setback
PLNWKB100	LonWorks® Gateway
PMNFP14A1	PI 485 for DFS
PZCWRC1	32.8' Wired Remote Extension Cable
PZCWRCG3	Group Control Cable Kit (required for each additional A/H with single zone controller)
PACP5A000	ACP 5
PACS5A000	AC Smart™ 5

Single Zone Indoor Accessories and Service Accessories

PWFMDD200 | PREMTBVC1 PREMTBVC0 | PREMTA000 | PREMTC00U | PDRYCB100 PDRYCB320 PDRYCB400 | ZRTBS01 | PZCWRCG3 PZCWRC1 | PRARS1 PRARH(0,1)

Single Zone		Wi-Fi Module w/ Cable	LG MultiSITE™ Remote Controllers	Premium Remote Controller	Simple Controller	Dry Contact	Remote Temp/ Button Sensor	Group Control	Cable Extension	Aux Heater Relay Kit
		PWFMDD200	PREMTBVC0 PREMTBVC1	PREMTA00U	PREMTC00U	PDRYCB100 PDRYCB320 PDRYCB400	ZRTBS01	PZCWRCG3	PZCWRC1	PRARH(0,1)
Art Cool™ Mirror	LAN090HSV5	Built-In	O	O	O	O	X	X	O	-
	LAN120HSV5	Built-In	O	O	O	O	X	X	O	-
	LAN180HSV5	Built-In	O	O	O	O	X	X	O	-
Art Cool™ Premier	LAN090HYV3	Built-In	O	O	O	O	X	X	O	-
	LAN120HYV3	Built-In	O	O	O	O	X	X	O	-
	LAN150HYV3	Built-In	O	O	O	O	X	X	O	-
	LAN180HYV3	Built-In	O	O	O	O	X	X	O	-
	LAN240HYV3	Built-In	O	O	O	O	X	X	O	-
Extended Piping	LSN243HLV3	Built-In	O	O	O	O	X	X	O	-
	LSN303HLV3	Built-In	O	O	O	O	X	X	O	-
	LSN363HLV3	Built-In	O	O	O	O	X	X	O	-
High Efficiency	LSN090HSV5	Built-In	O	O	O	O	X	X	O	-
	LSN120HSV5	Built-In	O	O	O	O	X	X	O	-
	LSN180HSV5	Built-In	O	O	O	O	X	X	O	-
Standard Efficiency	LSN090HFV3	X	O	O	O	O	X	X	O	-
	LSN120HFV3	X	O	O	O	O	X	X	O	-
	LSN180HFV3	X	O	O	O	O	X	X	O	-
	LSN240HFV3	X	O	O	O	O	X	X	O	-
Mega	LSN090HEV2	X	O[1]	O[1]	O[1]	O[2]	X	X	O	-
	LSN120HEV2	X	O[1]	O[1]	O[1]	O[2]	X	X	O	-
	LSN180HEV2	X	O[1]	O[1]	O[1]	O[2]	X	X	O	-
	LSN240HEV2	X	O[1]	O[1]	O[1]	O[2]	X	X	O	-
	LSN090HXV2	X	O	O	O	O	X	X	O	-
	LSN120HXV2	X	O	O	O	O	X	X	O	-
Console	LQN090HV4	O	O	O	O	O	O	O	O	O
	LQN120HV4	O	O	O	O	O	O	O	O	O
	LMQN150HV	O	O	O	O	O	O	O	O	O
4-Way Ceiling Cassette	LCN098HV4	O	O	O	O	O	O	O	O	O
	LCN128HV4	O	O	O	O	O	O	O	O	O
	LCN188HV4	O	O	O	O	O	O	O	O	O
	LCN249HV	O	O	O	O	O	O	O	O	O
	LCN369HV	O	O	O	O	O	O	O	O	O
	LCN429HV	O	O	O	O	O	O	O	O	O
	LCN489HV	O	O	O	O	O	O	O	O	O
Low Static Ducted	LDN097HV4	O[3]	O	O	O	O	O	O	O	O
	LDN127HV4	O[3]	O	O	O	O	O	O	O	O
	LDN187HV4	O	O	O	O	O	O	O	O	O
High Static Ducted	LHN248HV	O	O	O	O	O	O	O	O	O
	LHN368HV	O	O	O	O	O	O	O	O	O
	LHN428HV	O	O	O	O	O	O	O	O	O
	LHN488HV	O	O	O	O	O	O	O	O	O
Vertical AHU	LVN181HV4	O	O	O	O	O	O	O	O	O
	LVN241HV4	O	O	O	O	O	O	O	O	O
	LVN361HV4	O	O	O	O	O	O	O	O	O
	LVN420HV	O	O	O	O	O	O	O	O	O
	LVN480HV	O	O	O	O	O	O	O	O	O

Note:
""O" in a cell indicates available; "X" indicates not available; "-" indicates not applicable. Some IDUs have only a control wire terminal block (for field supplied control wire), while other IDUs have both a Molex connector (for LG control cable) and a control wire terminal block. See IDU engineering manual or installation manual for details.
1. Accessory wired controllers are applicable for 9/12kBtu product manufactured July 2019+ and 18/24kBtu product manufactured January 22, 2020+
2. Accessory dry contacts are applicable for product manufactured August 2019+
3. Accessory Wi-Fi module is applicable for product manufactured June 2018+
Due to our commitment to continued innovation, some specifications may be changed without notification.

Multi-Zone Indoor Accessories and Service Accessories

Multi-Zone		Wi-Fi Module w/ Cable	LG MultiSITE™ Remote Controllers	Premium Remote Controller	Simple Controller	Dry Contact	Remote Temp Button Sensor	Group Control	Cable Extension	Aux Heater Relay Kit	Aux Heater Relay Kit
		PWFMDD200	PREMTBVC0 PREMTBVC1	PREMTA000	PREMTC00U	PDRYCB100 PDRYCB320 PDRYCB400	ZRTBS01	PZCWRCG3	PZCWRC1	PRARS1	PRARH(0,1)
Art Cool™ Gallery	LMAN097HVP	O[1]	O	O	O	O	X	O	O	O[2]	-
	LMAN127HVP	O[1]	O	O	O	O	X	O	O	O[2]	-
Art Cool™ Mirror	LAN090HSV5	Built-In	O	O	O	O	X	O	O	O	-
	LAN120HSV5	Built-In	O	O	O	O	X	O	O	O	-
	LAN180HSV5	Built-In	O	O	O	O	X	O	O	O	-
High Efficiency	LMN079HVT	Built-In	O	O	O	O	X	O	O	O	-
	LSN090HSV5	Built-In	O	O	O	O	X	O	O	O	-
	LSN120HSV5	Built-In	O	O	O	O	X	O	O	O	-
	LMN159HVT	Built-In	O	O	O	O	X	O	O	O	-
	LSN180HSV5	Built-In	O	O	O	O	X	O	O	O	-
	LMN249HVT	Built-In	O	O	O	O	X	O	O	O	-
Console	LQN090HV4	O	O	O	O	O	O	O	O	-	O
	LQN120HV4	O	O	O	O	O	O	O	O	-	O
	LMQN150HV	O	O	O	O	O	O	O	O		O
4-Way Ceiling Cassette	LMCN078HV	O	O	O	O	O	O	O	O	-	O
	LCN098HV4	O	O	O	O	O	O	O	O	-	O
	LCN128HV4	O	O	O	O	O	O	O	O	-	O
	LCN188HV4	O	O	O	O	O	O	O	O		O
Low Static Ducted	LDN097HV4	O[3]	O	O	O	O	O	O	O	-	O
	LDN127HV4	O[3]	O	O	O	O	O	O	O		O
	LDN187HV4	O	O	O	O	O	O	O	O	-	O
High Static Ducted	LHN248HV	O	O	O	O	O	O	O	O	-	O
	LHN368HV	O	O	O	O	O	O	O	O		O
Vertical AHU	LVN181HV4	O	O	O	O	O	O	O	O	-	O
	LVN241HV4	O	O	O	O	O	O	O	O	-	O
	LVN361HV4	O	O	O	O	O	O	O	O	-	O

Note:
""O" in a cell indicates available; "X" indicates not available; "-" indicates not applicable. Some IDUs have only a control wire terminal block (for field supplied control wire), while other IDUs have both a Molex connector (for LG control cable) and a control wire terminal block. See IDU engineering manual or installation manual for details.
1. Accessory Wi-Fi module is applicable for product manufactured January 2019+
2. Emergency Heat function is not available with Aux Heat Relay Kit
3. Accessory Wi-Fi module is applicable for product manufactured June 2018+
Due to our commitment to continued innovation, some specifications may be changed without notification.