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# ML620 Ethernet Access Device

The ML620 Ethernet Access Devices (EADs) from Actelis® enable delivery of high-speed carrier Ethernet services over the existing copper and fiber infrastructure. The ML620s are intelligent, compact EADs that deliver up to 100 Mbps of symmetrical Ethernet traffic with fiber quality over existing copper pairs.

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"MM .- &"% NPEFMT QSPWJEF R 7-"/ BXBS
TQFFE CSJEHJOH EPVCMF UBHHJOH 7-"/ TUBD
7-"/ USBOTQBSFODZ - &UIFSOFU QSJPSJUZ
DMBTTJmDBUJPO XJUI GPVS USBGmD DMBTTFT
NPOJUPSJOH BOE .VMUJDBTU #SPBEDBTU MJN
5IF .- &"%T QSPWJEF QSPBDUJWF BOE EZOBI
USPVCMT TIPPUIJOH BOE NPOJUPSJOH DBQBCJ
&'.0". JODMVEJOH BI $'. BH BOE :
"WBJMBCMF JO FJUIFS PS DPQQFS QBUJPSUBUF EPVCMFTIPPUIJOH QIZTJDBM MJ
DPOmHVSBUIJPOT UIF .- .- .- &"%T DBOCFE BEWBODFE USPVCMTIPPUIJOH NFDIBO
JO B 1PJOU UP 1PJOU DPOmHVSBUIJPO PQUJPOBM DPQQFS "EE%SPQDIBJO PS
BT UIF $1& JO B 1PJOU UP .VMUJ 1PJOU DPOmHVSBUIJPOT QMBUGPSNTMDEO CF NBOBHFE *O
TXJUDIFT 8JUI JUT TVQFSJPS QFSGPSNBODF UIFUFUB"41*46" DUFMJSB &JDBM DSBGU B
MPX DPTU UIF .- &"% QMBUGPSNT PGGFS NVMUJ QMBUGPSNT &MNFUFSZ BOE NBOBHFNFOU 4ZTU
BMMPX GPS DPNQMFUF VUJMJ[BUJPO PG UIF NBOBHFNFOU OFUXPSLT JO GSBTUSVBUVSE
4/.1 VTJOH TUBOEBSE .#T GPS TFBNMFTT JOU
5IF .- &"% QMBUGPSNT BSF JOUFSPQFSBGMXPSUI BOEHTFNFOU BZTUFTNT /.4
&UIFSOFU TXJUDI SPVUFS PS IVC $PNQMJBOW XJUI .FUSP &UIFSOFU 'PSVN
.&' TQFDJmDBUJPO .- &"% TZTUFTNT TFBNMFTTMZ JOUFHSBUF
JOUP DBSSJFS &UIFSOFU OFUXPSLT &RVJQQFE XJUI GPVS #BTF 5
&UIFSOFU JOUFSGBDFT BOE BO PQUJPOBM #BTF '9 4NBMM 'PSN 'BDUPS
4'1 QPSU UIF .- &"% QMBUGPSNT BMMPX BTTJHONFOU PG B TFSWJDF
PS B DVTUPNFS QFS QPSU " %4 & VQMJOL DBO CF VTFE UP DPOOFDU UP
MFHBDZ OFUXPSLT JOTUFBE PG UIF #BTF '9 4'1
5IF .- &"% NPEFMT MFU TFSWJDF QSPWJEFST DSFBUF BO JOUFMMJHFOU
&UIFSOFU BDDFTT FEHF XJUI CBOEXJEUI MJNJUJOH QFS JOHSFTT QPSU BOE
USBGmD TIBQJOH PO UIF &UIFSOFU "DDFTT VQMJOL )4- 5IF .- JT
GVMMZ DPNQMJBOW XJUI UIF .&' BOE TQFDJmDBUJPO
1PXFSE CZ "DUFMJT /FUXPSLT BXBSE XJOOJOH &'.QMVT™ UFDIOPMPHZ
UIF SBUF SFBDI BOE SFMJBCJMJUJ BSF JODSFBTFE TJHOJmDBOUMZ VTJOH
BEWBODFE %ZOBND 4QFDUSVN .BOBHFNFOU %4. BOE %ZOBND 3BUF
#PPTU %3# UFDIOJRVFT 5IJT UFDIOPMPHZ EPVCMFT UIF SBUF SFBDI JO
SFBM XPSME mFME EFQMPZNFOUT $PNCJOFE XJUI "DUFMJT JOEVTUSZ MFBEJOH
93 &'. 3QFBUVST UIF SFBDI DBO CF FYUFOEFE FWFO GVSUIFS

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# 4 Q F D J m D B U J P O T

## \* O U F S G B D F T

Ethernet (Network/User)

t 10/100Base-T: Q P S \$ J T O O F D U P S V U P . % \* 9

t 100Base-FX Connector\*: Q P S R Q U 4 P I O # B T F . [ " D P N Q M J B O U

High Speed Link (Bonded Copper Pairs)

- Protocol: \* & & & B I # B T F 5 -
- Line code: \* 5 6 ( 5 S F W
- Bandwidth: 6 Q U P . C Q T T Z N N F U S J D B M
- Number of Copper Pairs: \$ P O O F D U P S (per modem/pair)
- End-to-end Delay: N T U Z Q J D B M
- Spectral Compliance: \* 5 6 ( 5 " O O F Y # ' ( & 5 4 5 " O O & Y / 4 \* 5 5 1 F S D P S C H S Z B D P R Q Z T J P O U S B M N P E F T
- Spectral Friendliness: % Z O B M Q B D U S B Q M O H % 4 4
- Cross-talk Cancellation: Dynamic Rate Boost (DRB)
- Sealing Current: 7 % \$ N ' P N J O B M & O W J S P O N F O U B M F S T

Management (Out-of-Band)

t 10/100Base-T Connector: 3 + " V U P . % \* 9  
t Craft & \* " 3 4 % \$ & \$ P O O F D U P S

## - / 1 S P U P D P M T

- Dynamic Bridging: \* & & & , . " \$ B E E S F T T E T
- Discovery Mechanisms: - - % 1
- VLAN Tagging: \* & & & 2
- Double Tagging: 2 J O 2
- RSTP, STP: \* & & & E
- Link Aggregation: \* & & & B E
- Provider Bridges: \* & & & B E
- OAM: \* & & & B D M B V T & ' . 0 " . \* & & & B H 5 6

## . B O B H F N F O U

Protocols

- t SNMP: 4 / . 1 W B O W D
- t Command Line Interface 5 - \* O E V T U S Z 4 U B O B S E
- t Remote Access 5 F M O F U
- t Secure Access (option): 4 4 W
- t Time Synchronization 4 / 5 1 W
- t Web Access ) 5 5 1
- t File transfer ' 5 1 5 ' 5 1
- t IEEE 802.3ah EFM OAM: % Z J ( B H T Q
- t User Authentication: 3 " % \* 6 B O E P S M P D B M T X P S E T

## . F U & R J I F S O S W N ' E W B O D F S W J D B

## M S P W J T B P S B C B O B H F N F O U

Quality of Service

- t Classes of Service:
- t Scheduler: 8 ' 2 4 1
- t Classification: - Q D S J P S J B B # T % J G G 4 F S W

Applications

- t EMS: . F U B " 4 4 & 4 8
- t Craft GUI: . F U B " 4 4 7 4 5 X

## ' S P O B O F O M E J D B - & P % S T

- t 1 P X F S
- t 4 U B U V T
- t " M B S N
- t . - 1 Q F S P E F N Q B J S
- t " \$ 5 " D U J W J U Z
- t - / , - J Q F S U I F S O F O P S U

## " M B \$ N O U B D U T

- t Terminal Block: \* O Q V W V U Q V Z T J D B M
- t Dimensions: Height: w N N 6 % F Q U I w N N 8 J E U I w N N
- t Weight: M C T , H

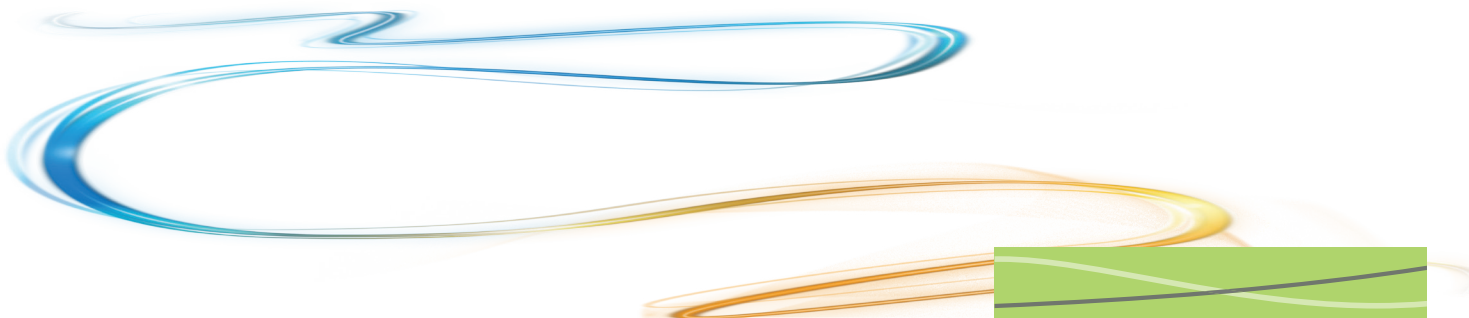
- t Mounting Rack V O J U O T w w P \$ 5 4 S B D L T % F T L & J P M R V O U
- t Power DC 7 % \$ P N J O B M 8 B U Q F S N P E A M 7 " \$ ) [ 8 B U Q F S N P E F M

## & O W J S P O N F O U B M

- t Operating Temp: i U P i \$
- t Storage Temp: i U P i \$
- t Relative humidity: 6 Q U P O P O D P O E 5 F T U B E D P S E B U A F ' U F N Q F S S R A S F S F N F O U T 3 F H V M B Q S Z W B M \$ F S U J m D B U J P O



- t \$ & . & ' B G F U Z
- t 6 - \$ 4 " \$
- t & / \* & \$
- & . \$
- t ' \$ 1 B S U \$ M B # T
- t \* \$ & 4 \$ M B # T
- t & 5 & 7 \$ M B # T
- t & 5 & 5 4
- t \* 5 6 , 5 , / & # 4
- t - F W F M B \$ 0 3 & 3 \$ 0 3 & \$ &
- t & . \$ B O E B G F U Z
- & O W J S P O N F O U B M
- t ( 3 \$ 0 3 &
- t & 5 & 5 4



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