



DOC.IV-7
EDITION: 2025-Q3

VERTICALLY INTEGRATED SYSTEMS

PRODUCT CATALOG

FIBER OPTICS & PHOTONICS

2025

SCOPE: Optoelectronic
Components & Solutions

APPLICATIONS: Optical
Communication, Consumer &
Automotive

KEY TECH: VCSELs, PIN
Photodiodes, SiGe BICMOS



01. WELCOME TO VI SYSTEMS

VI SYSTEMS (VIS) DEVELOPS AND MANUFACTURES CUTTING-EDGE OPTOELECTRONIC COMPONENTS FOR COMMUNICATION, CONSUMER, AND AUTOMOTIVE APPLICATIONS. LOCATED IN THE HEART OF BERLIN, WE ARE A FABLESS COMPANY SPECIALIZING IN ULTRA-FAST SOLUTIONS FOR OPTICAL INTERCONNECTS AND SENSORS.

OUR PORTFOLIO INCLUDES VERTICAL CAVITY SURFACE-EMITTING LASERS (VCSELS) AND PIN PHOTODIODES DELIVERING SPEEDS UP TO 224 GBPS PER CHANNEL, ALONGSIDE DRIVER AND AMPLIFIER ICS OPERATING UP TO 56 GBPS. OUR LATEST GENERATION COMPONENTS ENABLE ENERGY-EFFICIENT 400 GBPS PAM-4 TRANSMISSION USING SHORT WAVE DIVISION MULTIPLEXING (SWDM).



VERTICALLY INTEGRATED SYSTEMS

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03. TECHNOLOGY & SERVICES

INTEGRATED OPTICAL SOLUTIONS

WE PAIR STATE-OF-THE-ART SIGE BICMOS INTEGRATED CIRCUITS WITH OUR ULTRAHIGH-SPEED VCSEL AND PIN COMPONENTS TO DELIVER OUTSTANDING PERFORMANCE.

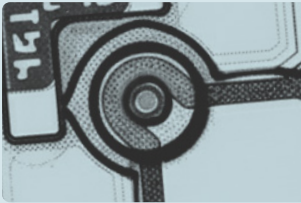
WAFER MAPPING SERVICES

COMPREHENSIVE ELECTRICAL AND OPTICAL TESTING ON 2" TO 8" WAFERS AT TEMPERATURES UP TO 150°C.

HIGH-FREQUENCY TEST & CHARACTERIZATION

ELECTRO-OPTICAL PERFORMANCE MEASUREMENT WITH DATA MODULATION ANALYSIS UP TO 128 GBIT/S.

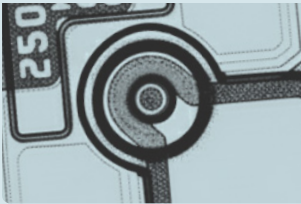
04. VCSEL TRANSMITTER MODULES



V25-850M

DATA RATE	28 GBPS (NRZ)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

DATASHEET 



V50-850M


DATA RATE	56 GBPS (PAM-4)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

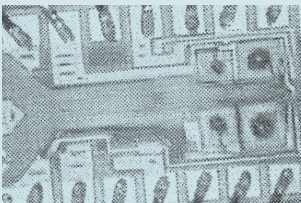
DATASHEET 



VM100-850M

DATA RATE	112 GBPS (PAM-4)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

DATASHEET 



T56-850

DATA RATE	56 GBPS (NRZ)
WAVELENGTH	850 NM
FIBER TYPE	50/125 MM

DATASHEET 

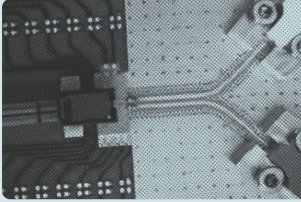


V25-1550M

WAVELENGTH	1550 NM
DATA RATE	25 GBPS (NRZ)
FIBER TYPE	9/125 MM

DATASHEET 

05. OPTICAL RECEIVERS & PHOTODETECTORS



R56-850

INPUT 700-870 NM
WAVELENGTH
DATA RATE (NRZ) 56 GBPS
FIBER TYPE 50/125 MM

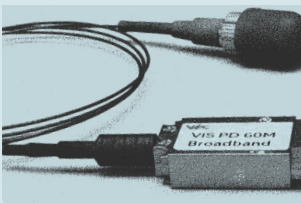
DATASHEET 



D30-850M

3 DB BANDWIDTH > 30 GHZ
WAVELENGTH 840-1650 NM
FIBER TYPE 50/125 MM

DATASHEET 



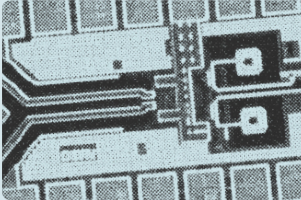
D60M FC

INPUT 400-1650 NM
WAVELENGTH
3 DB BANDWIDTH > 60 GHZ
FIBER TYPE MMF/SMF

DATASHEET 

06. INTEGRATED CIRCUITS (ICS)

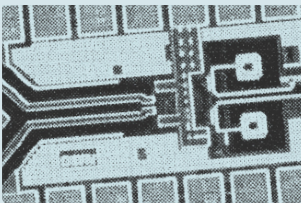
HIGH SPEED VCSEL DRIVERS



A56-230C


DATA RATE	UP TO 100 GBPS
SUPPLY VOLTAGE	3.3 V
POWER DISSIPATION	200 MW

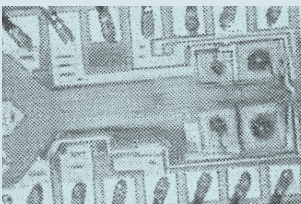
DATASHEET 



A56-105C

DATA RATE	UP TO 56 GBPS
SUPPLY VOLTAGE	3.3 V
POWER DISSIPATION	105 MW

DATASHEET 



T56-250C

DATA RATE	UP TO 56 GBPS (NRZ)
DIFFERENTIAL GAIN	3.0 KΩ
POWER	150 MW

DATASHEET 

08. ULTRA HIGH-SPEED VCSEL CHIPS

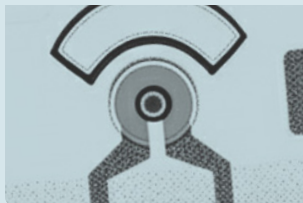
SERIES: VM100



VM100 850

CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 



VM100 880

CHIP TYPE	MULTI-MODE
WAVELENGTH	870-890 NM
CONTACT	GSG

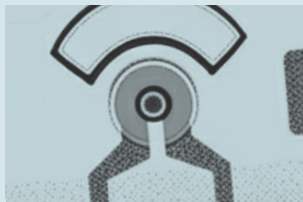
DATASHEET 



VM100 910

CHIP TYPE	MULTI-MODE
WAVELENGTH	900-920 NM
CONTACT	GSG

DATASHEET 



VM100 940

CHIP TYPE	MULTI-MODE
WAVELENGTH	930-950 NM
CONTACT	GSG

DATASHEET 

09. ULTRA HIGH-SPEED VCSEL CHIPS

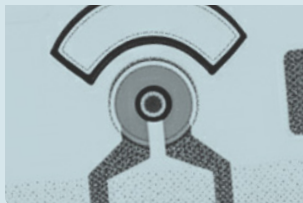
SERIES: VM100 (MA-SM / QSM)



VM100 850 MA-SM


CHIP TYPE	MA-SM
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 



VM100 880 MA-SM

CHIP TYPE	MA-SM
WAVELENGTH	870-890 NM
CONTACT	GSG

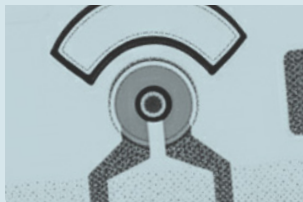
DATASHEET 



VM100 910 MA-SM


CHIP TYPE	MA-SM
WAVELENGTH	900-920 NM
CONTACT	GSG

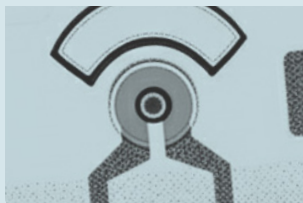
DATASHEET 



VM100 940 MA-SM


CHIP TYPE	MA-SM
WAVELENGTH	930-950 NM
CONTACT	GSG

DATASHEET 



VM100 850 QSM


CHIP TYPE	QSM
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 



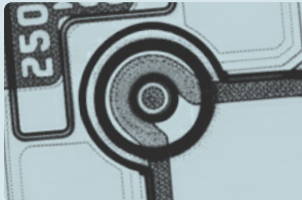
VM100 910 QSM

CHIP TYPE	QSM
WAVELENGTH	900-920 NM
CONTACT	GSG

DATASHEET 

10. HIGH-SPEED VCSEL CHIPS

SERIES: V50 / VM50 / V25



V50 850

CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	SG / GS

DATASHEET 



VM50 940

CHIP TYPE	MULTI-MODE
WAVELENGTH	930-950 NM
CONTACT	GSG

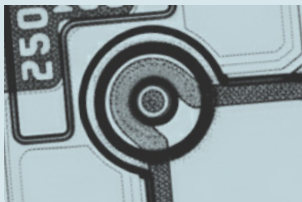
DATASHEET 



V25 940 HP MA

FEATURE	HIGH POWER (LIFI)
WAVELENGTH	930-950 NM
CONTACT	SG / GS

DATASHEET 



VM50 850


CHIP TYPE	MULTI-MODE
WAVELENGTH	840-860 NM
CONTACT	GSG

DATASHEET 



V25 850 HT

FEATURE	HIGH TEMP (125°C)
WAVELENGTH	840-860 NM
CONTACT	SG / GS

DATASHEET 

11. HIGH-SPEED PHOTODIODES (PDS)

SWDM-OPTIMIZED




D40 SWDM

CONTACT TYPE	GSG
DIAMETER	20 MM
BANDWIDTH	~40 GHZ

DATASHEET 

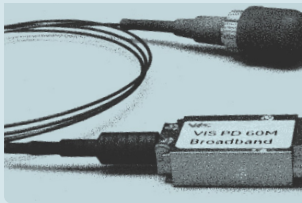

D35 SWDM

CONTACT TYPE	GSG
DIAMETER	25 MM
BANDWIDTH	~35 GHZ

DATASHEET 



D30 SWDM

CONTACT TYPE	GSG
DIAMETER	~23 MM
BANDWIDTH	~30 GHZ

DATASHEET 



D70 SWDM

CONTACT TYPE	GSG
DIAMETER	~25 MM
BANDWIDTH	~70 GHZ

DATASHEET 


D400G

CONTACT TYPE	GSG
DIAMETER	~16 MM
BANDWIDTH	~60 GHZ (25Ω)

DATASHEET 



12. CONTACT INFORMATION

FOR ADDITIONAL INFORMATION OR TO RECEIVE A QUOTATION, PLEASE CONTACT OUR SALES DEPARTMENT.

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