

DOC.IV-7 EDITION: 2025-Q3

PRODUCT CATALOG

FIBER OTICS & PHOTONICS



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).



02. TABLE OF CONTENTS

- **02 WELCOME TO VI SYSTEMS**
- **04 TECHNOLOGY & SERVICES**
- **05 VCSEL TRANSMITTER MODULES**
- **06 OPTICAL RECEIVERS & PHOTODETECTORS**
- 07 INTEGRATED CIRCUITS (ICS)
- 08 ULTRA HIGH-SPEED VCSEL CHIPS
- 09 HIGH-SPEED VCSEL CHIPS
- 10 HIGH-SPEED PHOTODIODES (PDS)
- 11 CONTACT INFORMATION

< PREV

NEXT >



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.



PRODUCT-GROUP: TRANSMITTERS TRANSMITTERS RECEIVERS ICS

04. VCSEL TRANSMITTER MODULES

| | | |
|---|---------------|-----------|
| V25-850M DATA RATE WAVELENGTH FIBER TYPE | | DATASHEET |
| V50-850M DATA RATE WAVELENGTH FIBER TYPE | | DATASHEET |
| VM100-850M DATA RATE WAVELENGTH FIBER TYPE | | DATASHEET |
| T56-850 DATA RATE WAVELENGTH FIBER TYPE | | DATASHEET |
| V25-1550M WAVELENGTH DATA RATE FIBER TYPE | 25 GBPS (NRZ) | DATASHEET |

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CHIPS



05. OPTICAL RECEIVERS & PHOTODETECTORS

| R56-850 INPUT WAVELENGTH DATA RATE (NRZ) FIBER TYPE | | DATASHEET |
|--|------------------------------------|-----------|
| D30-850M 3 DB BANDWIDTH WAVELENGTH FIBER TYPE | 840-1650 NM | DATASHEET |
| WAVELENGTH 3 DB BANDWIDTH | 400-1650 NM > 60 GHZ MMF/SMF | DATASHEET |



06. INTEGRATED CIRCUITS (ICS)

HIGH SPEED VCSEL DRIVERS

| A56-230C DATA RATE SUPPLY VOLTAGE POWER DISSIPATION | UP TO 100 GBPS 3.3 V 200 MW | DATASHEET |
|---|---|-------------|
| A56-105C DATA RATE SUPPLY VOLTAGE POWER DISSIPATION | UP TO 56 GBPS 3.3 V 105 MW | DATASHEET |
| T56-250C DATA RATE DIFFERENTIAL GAIN POWER DISSIPATION | UP TO 56 GBPS (NRZ) 3.0 KΩ 150 MW | DATASHEET & |



08. ULTRA HIGH-SPEED VCSEL CHIPS

SERIES: VM100 (MM / MA-SM / QSM)

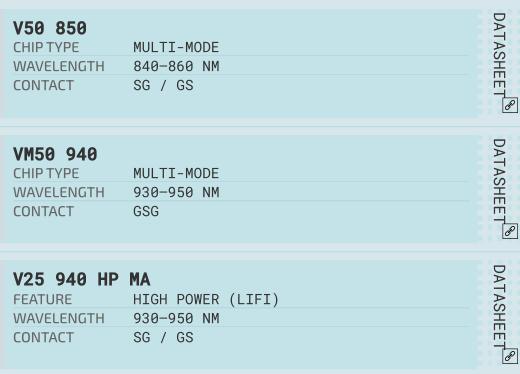
| VM10 | ELENGTH 840-860 | | HEET DATASHEET |
|-------|-----------------|----------|----------------|
| CHIP. | | | DATASHEE |
| CHIP. | ELENGTH 930-950 | DE NM | DATASHEET |
| CHIP. | ELENGTH 900-920 | DE NM | DATASHEET |
| CHIP | ELENGTH 870-890 | DE NM | DATASHEET |
| CHIP. | ELENGTH 840-860 | DE NM | DATASHEET |



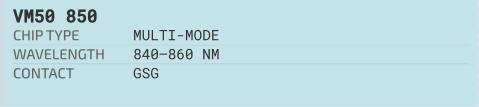
09. HIGH-SPEED VCSEL CHIPS

SERIES: V50 / VM50 / V25

| ULTI-MODE |
|-----------|
| 40-860 NM |
| G / GS |
| |



| V25 940 HP | MA |
|------------|-------------------|
| FEATURE | HIGH POWER (LIFI) |
| WAVELENGTH | 930-950 NM |
| CONTACT | SG / GS |
| | |



| VM50 850 CHIP TYPE WAVELENGTH CONTACT | MULTI-MODE 840-860 NM GSG | DATASHEET |
|--|--|-----------|
| V25 850 HT FEATURE WAVELENGTH CONTACT | HIGH TEMP (125°C) 840-860 NM SG / GS | DATASHEET |



10. HIGH-SPEED PHOTODIODES (PDS)

SWOM-OPTIMIZED

| D40 SWDM CONTACT TYPE DIAMETER BANDWIDTH | GSG 20 MM ~40 GHZ | DATASHEET |
|---|--------------------------------|-----------|
| D35 SWDM CONTACT TYPE DIAMETER BANDWIDTH | GSG 25 MM ~35 GHZ | DATASHEET |
| D30 SWDM CONTACT TYPE DIAMETER BANDWIDTH | GSG ~23 MM ~30 GHZ | DATASHEET |
| D70 SWDM CONTACT TYPE DIAMETER BANDWIDTH | GSG ~25 MM ~70 GHZ | DATASHEET |
| D400G CONTACT TYPE DIAMETER BANDWIDTH | GSG ~16 MM ~60 GHZ (25Ω) | DATASHEET |



11. CONTACT INFORMATION

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

ADDRESSVI TELEPHONE+49 30 3083143 30 SYSTEMS GMBH, HARDENBERGSTRASSE 7, 10623 BERLIN, GERMANY

EMAILSALES@V-I-SYSTEMS.COM

WEBWWW.V-I-SYSTEMS.COM

