IFX Fiber Optics - DWDM Product Introduction

NEW

NEW : MUX/DEMUX W/ Integrated PM

stop thinking never

P. Neumann
FO ON
17.9.2001

Joint Product Development
Infineon - Wavesplitter

NEW

New market challenges regarding further integration of DWDM functionality is answered by

the joint development of the MUX/DEMUX with power monitor

as a result of Infineon's advanced semiconductor, proven fiber optics design and manufacturing expertise in combination with Wavesplitter's innovative optical design and packaging strengths

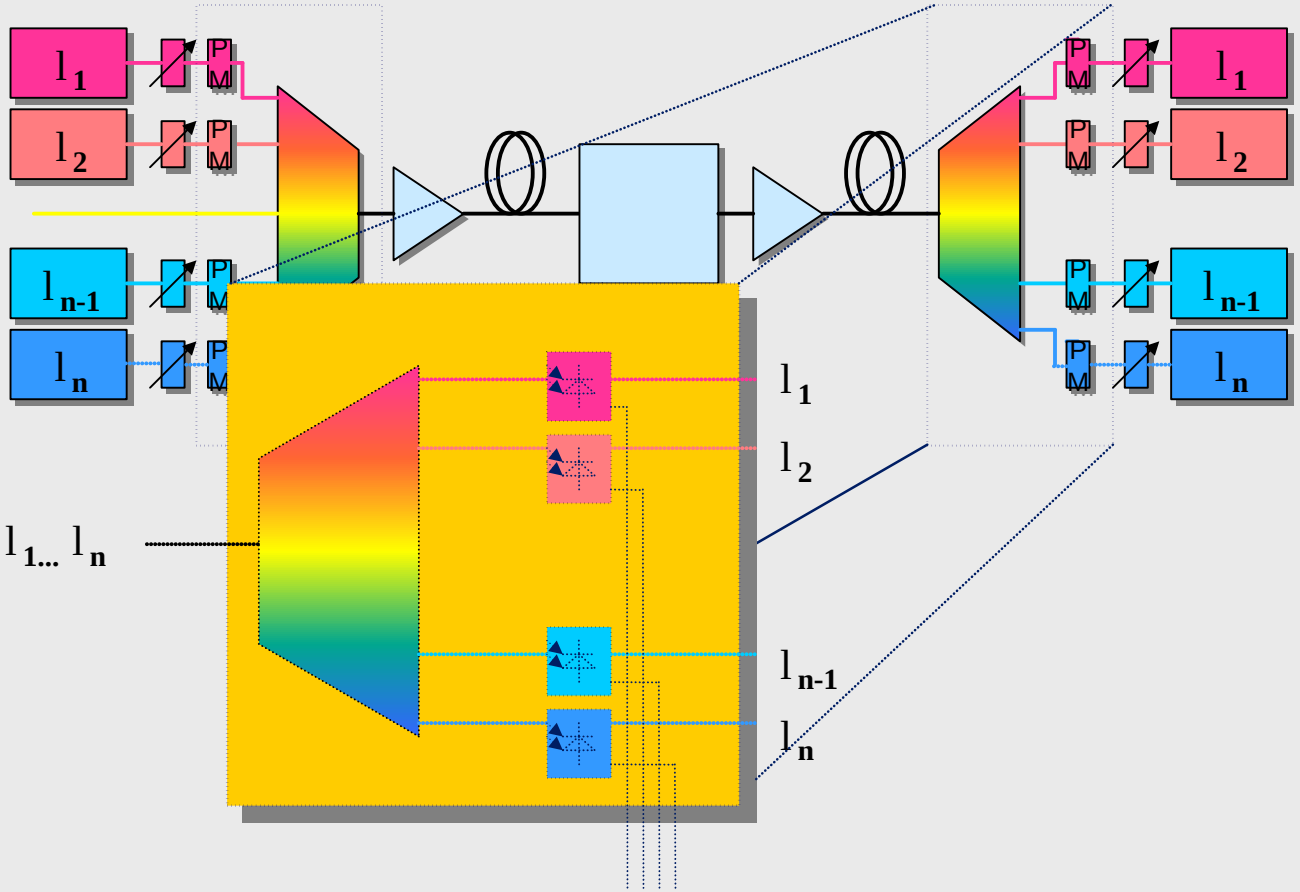
Product Information
MUX/DEMUX 40/100 With Integrated Power Monitoring

NEW

The new product underlines Infineon's ongoing strategy of converging optical and IC competencies into single high-performance platforms

DWDM Products
Functionality - DEMUX with integrated PM

NEW



Integrated optical de-coupling and opto-electrical conversion

Product Information
Features

NEW

- Features
  - 40 Channel Multiplexer / Demultiplexer
  - Integrated PIN Diodes for power monitoring
  - Low insertion loss
  - Excellent uniformity
  - Temperature stabilized by heater insensitive against change of ambient temperature

- Technology
  - SoS (Silica on Silicon)

- Application
  - DWDM transmission “point-to-point” (long haul)
  - Metropolitan Area Networks (ring structures)
  - Add/drop
  - Digital cross connect

Product Information
Preliminary Technical Data (through ports)

NEW

parameter	symbol	units	
through ports			
no. of channels	N		40
channel spacing	Δf_c	GHz	100
lower frequency channel		THz	192,1
insertion loss @ PB	IL	dB	<6.5
insertion loss uniformity	ΔIL	dB	<1.8
1.0 dB passband width	PB1	pm	> 200
		GHz	> 25
3.0 dB passband width	PB3	pm	> 350
		GHz	> 44
isolation - adjacent channel	XT_a	dB	> 25
- non adjacent channel	XT_n	dB	> 32
PDL	PDL	dB	$\leq$ 0,5
optical return loss	RL	dB	> 50
max. opt. power	Pmax	dBm	20
min. opt. Power	Pmin	dBm	-20
chromatic dispersion	CD	ps/nm	<10

Product Information
Preliminary Technical Data (tap ports,operation,mechanics)

NEW

parameter	symbol	units	
tap ports			
tap coupling ratio		dB	-15 +-1
wavelength dependance		dB	<0.3
elect. Isolation:adjacent channel		dB	<-20
responsivity		A/W	>0.7
response time	t_r	MHz	<500
dark current (-5V; 25 °C)		nA	<1
dark current (-5V; 85 °C)		nA	<120
forward current (0.5V)		µA	>10
breakdown voltage		V	>20
operation			
PIN bias voltage	U_{bias}	V	-5
operation temperature	T_{op}	°C	0...70
storage temperature	T_{st}	°C	-40...85
type of temp. stabilisation		Heater	
heater voltage/ heater power	U_H / P_H	V / P	5 / 5
set point of heater	T_{set}	°C	75 +- 4
mechanical			
height	h	mm	10
width	w	mm	46
length	l	mm	150
qualification		Telcordia 1221 UNC.	

Product Information
Availability

NEW

- Prototype for demonstration @ ECOC — September 2001
- Engineering samples — Q4, 2001
- Volume Production — starting Q2, 2002

Thank you for visiting us