Inphi Moves Big Data Faster

Inphi Corporate Update

February 7, 2018
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This presentation includes forward-looking statements relating to matters that are not historical facts, including, without limitation, statements regarding the Company’s Financial Results and Business Outlook, Inphi’s short and long term growth strategies, trends in IP traffic and technology adoption, the future sizes and anticipated growth of the networking infrastructure, cloud computing and data center markets, including geographic and market segment outlooks. In some cases, such forward-looking statements are identified by words such as “anticipate,” “believe,” “plan,” “estimate,” “expect,” “strive,” “future,” “intend” and similar expressions. Although Inphi’s management believes that the expectations reflected in the forward-looking statements are reasonable, such statements involve known and unknown risks, uncertainties and other factors that may cause Inphi’s actual results to be different from any future results expressed or implied by these statements, including the risks and uncertainties described in the preliminary offering memorandum relating to the proposed offering report, and other filings with the U.S. Securities and Exchange Commission made from time to time. We caution you that no forward-looking statement is a guarantee of future performance, and you should not place undue reliance on these forward-looking statements which reflect the view of Inphi’s management only as of the date of this presentation. We assume no obligation to, and expressly disclaim any obligation to, update any forward-looking statements contained in this presentation as a result of new information or future events or developments.

In addition to U.S. GAAP financials, this presentation includes certain non-GAAP financial measures. These non-GAAP financial measures are in addition to, and not a substitute for or superior to, measures of financial performance prepared in accordance with U.S. GAAP. See the Appendix for a reconciliation between each non-GAAP measure and the most comparable U.S. GAAP measure.
Focus on high-speed data movement interconnects

Serve cloud, enterprise and service provider markets

Differentiate with broadband linear amplification and higher modulation opto-electronic solutions

Core competence in high-speed analog, DSP and optics

669 patents: high-speed analog and package design

Invest for growth with 75% engineering

Notes: Company data per human resources & legal reports 1/2018 and finance reports 2/7/2018

*Pro-forma, Non-GAAP revenue and EPS adjusted for continued operations of the sale of the memory business
Inphi Global Locations Support Customers and Attract Talent

Worldwide Offices in North America, Asia-Pacific, Europe

Inphi HQ:
Santa Clara, CA

Design Centers
**USA:** Irvine, Santa Clara, Westlake Village  
**Canada:** Ottawa, Vancouver  
**Argentina:** Cordoba  
**United Kingdom:** Northampton  
**Europe:** Hanover  
**Asia-Pacific:** Singapore

Sales & Support
**USA:** Austin, Chicago, Folsom, Kansas City, Raleigh  
Santa Clara, Westlake Village  
**Europe:** Milan, Munich  
**Asia-Pacific:** Beijing, Hsin-Chu, Shanghai, Shenzhen, Wuhan, Tokyo

Operations
**USA:** Santa Clara, Westlake Village  
**Asia-Pacific:** Malaysia, Singapore, Taiwan
Data and Traffic Are Growing Exponentially

**Cloud Services**

- Baidu 百度
- Microsoft
- Google
- Cisco Global Cloud Index

- Cisco IoT White Paper

**IoT**

- Nest
- Samsung
- Apple
- Fitbit

**Smartphone Users**

- 23% Growth
  - Nokono

**Big Data**

- 23% Growth
  - IDC
  - IBM
  - Hortonworks
  - Teradata
  - Splunk
  - Tableau

**e-Commerce**

- 10% Growth
  - IDC
  - Alibaba.com
  - Rakuten

**Video**

- 33% Growth
  - Netflix
  - Hulu
  - Vine
  - YouTube

**Social**

- 12% Growth
  - Facebook
  - LinkedIn
  - Tencent

**Notes**

1. Smartphone users as of 2015
2. CAGR calculated from 2014 – 2019, for sources refer the references section
3. Social Media users CAGR 2010-2020 estimate

Trends, Dec. 2015
New Trends Fuel Further Data and Traffic Growth


Data and Traffic Explosion

Secure Cloud
- Baidu
- Amazon Web Services
- Microsoft
- Google

Autonomous Vehicles
- Uber
- Lyft
- Tesla
- Didi
- Google
- BMW

5G Wireless
- China Mobile
- Verizon
- China Telecom
- China Unicom
- AT&T

New Media
- AT&T
- Time Warner
- Netflix
- Yahoo!
- YouTube

Mixed, Virtual, Augmented Reality
- Microsoft
- Facebook
- Google

Artificial Intelligence
- IBM
- Microsoft
- Google

Chatbots
- Google
- Allo
- Tencent
- Alexa
- WeChat
- Amazon
- Microsoft
- Skype
- Snapchat
- Facebook
- WhatsApp
### Security
- Security “of” and “in” the Cloud
- Encryption for In-transit Data
- Confidential Computing

### Serverless
- VM ➔ Container ➔ Serverless/Orchestration

### AI, Smart NIC
- 20-180 TeraFlops / Accelerator

### Networking
- NIC: 1G ➔ 100G
- Switch: 3.2T ➔ 12.8T

### Storage
- 1PB / Rack ➔ 1ZB / Rack

### Server Evolution
- 3.2 GHz ➔ 4 GHz / Core
- 16 Cores ➔ 128 Cores
- 512G RAM ➔ 4T RAM / Server

### Scale, Performance
- 100K+ Servers / DC
- Millions of Servers / Cloud Provider

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**Inphi Proprietary**
Inphi Solves Data Movement Between & Inside Data Centers

“The Data Center is the Computer™”

“The Cloud is the Network™”

Inside DC 500m-2km

DCI Long Haul >600km
DCI Metro 100km-600km
DCI Edge 2km-100km

Inphi Proprietary
Inphi Leads in Data Movement Interconnects

Data Manipulation

Processor, GPU, NIC, Switch

Digital

Data Movement

Optical, Networking

Analog, Mixed Signal, DSP
Inphi Leads in Data Movement Interconnects

Long Haul / Metro  ↔  Between Data Centers  ↔  Inside Data Centers

Data Movement Around the Globe  Data Movement Between Data Centers  Data Movement Inside Data Centers

Optical Amplifier  Optical Driver  Coherent DSP  Silicon Photonics  DWDM Optical Module Reference Design  CDR/PHY  Gearbox  PAM

Inphi Proprietary 10
Large Total Addressable Market (TAM)

Long Haul / Metro

Between Data Centers

Inside Data Centers

90 Million 10G/40G/100G Ports

Service Providers

Data Centers

Cloud

Enterprise

$3 Billion Interconnect TAM in 2020

Note: 2016 data from Cignal AI, Crehan Research, LightCounting, HIS and Inphi Estimates
Provide Complete Component Solution for Optical Platform

Long Haul / Metro
- Partner Optics
- TiA
- Driver
- High Performance Coherent DSP

Data Center
- SiPho
- Partner Optics
- TiA
- Driver
- Low Power PAM DSP

Inphi
Partners
### Inphi Leads in Data Movement Interconnects

<table>
<thead>
<tr>
<th></th>
<th>TiA</th>
<th>Driver</th>
<th>PAM DSP</th>
<th>Silicon Photonics</th>
<th>Coherent DSP</th>
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</thead>
<tbody>
<tr>
<td><strong>Long Haul / Metro Coherent</strong></td>
<td>28/32/45/64 Gbaud</td>
<td>Gold Box, SMT, Bare Die</td>
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<td>ASIC</td>
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<td>M200 New</td>
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<td><strong>Between Data Centers</strong></td>
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<td>COLORZ</td>
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<td>400G ZR</td>
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<td><strong>Inside Data Centers</strong></td>
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<td>50G and 100G PAM</td>
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<td>Platform: DSP, TiA, Driver</td>
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</table>
Strong Design Wins Consistently Grow Revenue Funnel

**Historical Opportunity Size**

Source: Inphi Estimates
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Ford Tamer</td>
<td>President and CEO</td>
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<tr>
<td>John Edmunds</td>
<td>SVP, CFO</td>
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<tr>
<td>Loi Nguyen</td>
<td>Founder, SVP, Optical Interconnect</td>
</tr>
<tr>
<td>Oscar Agazzi</td>
<td>VP Engineering, Coherent DSP</td>
</tr>
<tr>
<td>Sudeep Bhoja</td>
<td>CTO, Networking Interconnect</td>
</tr>
<tr>
<td>Radha Nagarajan</td>
<td>CTO, Optical Interconnect</td>
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<tr>
<td>Charlie Roach</td>
<td>SVP, Worldwide Sales</td>
</tr>
<tr>
<td>Siddharth Sheth</td>
<td>SVP, Networking Interconnect</td>
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<tr>
<td>Ron Torten</td>
<td>SVP, Operations and IT</td>
</tr>
<tr>
<td>Lawrence Tse</td>
<td>SVP, Engineering</td>
</tr>
<tr>
<td>Nariman Yousefi</td>
<td>SVP, Coherent DSP</td>
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</tbody>
</table>
Inphi Recognized for Excellence:
7 New Awards for Quality & Technology in 2017-2018

Cisco
New Emerging Technology Supplier 2015

Huawei
Best Quality Company 2015

FiberHome
Core Partner 2015

Fujitsu
Technical Advancement 2017

Innolight
Innovation 2018

Sumitomo
Awards of Excellence 2013 2015

Sumitomo Electronics
Device Innovation (SEDI) Best Partner Awards 2013-2015

NeoPhotonics
Supplier of the Year 2015

LightWave
Innovation Awards 2017

400GbE PAM 4 Platform 2017

COLORZ PAM4 2016

ECN

Quad Linear Driver COLORZ PAM4

GSA
Needham Favorite Semiconductor Company 2015

Deloitte
Fast 500 Technology Company 2016
Innovation Drives Customer Success

2001
40G Differential Driver Modulator Driver
+ 40G TIA

2009
28G Coherent TIA
+ 28 Gbps Differential Modulator Driver

2012
28G CMOS SERDES
+ 32G Linear Modulator Driver

2014
45G Linear Modulator Driver
+ 45G Coherent TIA
+ PAM

2015
Smallest Form Factor
+ SMT Linear Driver
+ PAM 4

2016
COLORZ for 80km DWDM
+ SiPho Platform for 100G Data Center
+ Shipped 1M 100G Coherent Amplifiers & Drivers
+ 64G Coherent TIA
+ Lowest Power CDR
+ 400G CFP8 Platform (28nm PAM DSP / Driver / TIA)

2017
64G Coherent Driver
+ 28G EML Linear Driver
+ Polaris™ Platform (16nm PAM DSP / Driver / TIA)
+ Low power Coherent DSP for Metro and Long Haul
+ COLORZ-Lite for Campus & Data Center Interconnects
+ Vega™ DSP 16nm Retimer & Gearbox for LineCards
Long Haul / Metro:

The Cloud is the Network™
Coherent Long Haul/Metro Market Maturing

Coherent Port Forecast

Source: Cignal AI
Inphi Leads Transition from Limiting to Linear

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
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<tr>
<td>TIA</td>
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<td>Driver</td>
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<td>Linear</td>
<td>Limiting</td>
<td>Linear</td>
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Estimated market share of Linear Drivers for 100G – 1T
Industry Leading Linear Coherent Solutions

- Most Tier 1 OEMs use Inphi TiAs and Drivers
- Inphi regarded as “gold standard” for quality
- Inphi is first to market with next generation 64G linear amplifier and driver solutions
3.7M Coherent Units Shipped > All Competitors Combined

Cumulative Shipments (M Units)

Industry First 64Gbaud Coherent Driver

Industry Smallest SMT 100G Linear Driver

Industry First 100G Linear Driver

Industry First 100G Linear Amplifier
<table>
<thead>
<tr>
<th><strong>Growing Optical Interconnects Between Data Centers</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ports grow 20%, led by CFP-DCO</strong></td>
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<tr>
<td><strong>Enter Metro</strong></td>
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<tr>
<td><strong>Take share with Linear</strong></td>
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<tr>
<td><strong>Ramp new 45 and 64 Gbaud products</strong></td>
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<tr>
<td><strong>Grow with both module and line card customers</strong></td>
</tr>
<tr>
<td><strong>Support partner products: SiPho, CFP DCO, CFP2 ACO</strong></td>
</tr>
<tr>
<td><strong>Ramp new modulations: 16QAM and 64QAM</strong></td>
</tr>
</tbody>
</table>
Between Data Centers:

Coherent DSP Solutions
Market Size for Coherent Merchant DSP Steadily Growing

Source: Cignal AI, Inphi Estimates
Complete Platform to Enable Customer Success

- High Performance
- Best Quality
- Low Power
- Fast Time-to-market
- Competitive Cost
- Long Reach
- Dedicated Customer Support

Optical Platform

- Coherent DSP
- Optical PHY
- TiA
- SiPho or Partner Optics

Note:
1. Wireless subscriptions and social media users are as of 2015
2. CAGR calculated from 2014 – 2019, for sources refer the references section
M200 is Ramping to Production

Differentiation:
Highest performance
16nm SoC
100G & 200G

- Enables CFP DCO CFP2 DCO line cards
- Market share gain through new Tier 1 customers
- Low power technology
- Framer & encryption integrated
Inphi Supports Discrete, DCO and ACO Customers

High Performance Line Cards - Discrete

Comprehensive product offering from Inphi:
- Coherent DSP
- Coherent TIA
- Coherent Driver

DCO modules

ACO modules
Between Data Centers:

DCI Edge Solutions
Data Center Moving Towards Distributed Architecture

- Next-gen data centers build out is happening in metro.
- Distributed data center enables virtual mega data centers to be built in metro where space and power are limited.
- Major architectural shift in connecting distributed data centers with cost effective, low power 100G DWDM solutions.
COLORZ Delivers 100G QSFP28 for 80km Data Center Interconnect

“The Data Center is the Computer™”

Connecting Data Centers

“The Cloud is the Network™”

100Gb/s
80km
4.5W

“The Data Center is the Computer™”
COLORZ Delivers Complete Solution for Time-to-Market

SiPho Optics + Linear TiA, Driver + PAM: DSP, ADC = Validated Design = 100G, QSFP28, 80km = Lower Power + Lower Cost + 100G Speed

Lower Power + Lower Cost + 100G Speed
ECOC 2017 COLORZ-Lite™ Live Demonstration
DWDM Campus Connectivity

Featuring 3.2T of aggregate east-west traffic between 100GbE switches across 20km of fiber via cost optimized open line system

32 Inphi COLORZ-Lite DWDM PAM4 QSFP28 100GbE Transceivers
COLORZ Eco-System

Open Line System (OLS) Partners

Switch/Router Partners

- ADVA
- Coriant
- smartoptics
- Accelink
- II-VI
- Inphi
- COLORZ
- MPB

- CISCO
- HUAWEI
- ARISTA
- JUNIPER
- Inventec
- BROCADE
- DELL
- H3C
COLORZ Has Clear Power, Density and Cost Benefits

Microsoft Regional Optics | Madison

Microsoft (owned, controlled, driven, invented) technology provides us and our customers a competitive advantage.

Massive scale achieved by embedding the world’s lowest cost, lowest power per bit technology into commodity switching.

Ultra-low-cost, low power solution
- QSFP28 form-factor
- ≤ 4.5 W/plug
- Colored with 80km reach (40 channels)
- 100G PAM4 modulation
- Direct-detect demodulation
- Silicon photonics-based optics

FEC/DSP based in 28nm CMOS

Mark Russinovich, Microsoft Ignite – September 29, 2017
COLORZ Efficiently Enables Massive Cloud Connectivity

Madison architecture

Allows us to cost effectively deploy 1.689 Petabits/sec of inter datacenter switching

Mark Russinovich, Microsoft Ignite – September 29, 2017
Inside Data Centers:
The Data Center is the Computer™
LightCounting: LC Ethernet Forecast, September 2017
Inside Data Center 100G+ Port Count

100/200/400G Port Count

LightCounting: LC Ethernet Forecast, Sept. 2017 and Inphi Marketing Estimates
Data Center Transition to Fiber, DAC PHYs

 Estimated Capture Rate by Fiber/DAC into BASE-T PHY Share

Source: Inphi Estimates, Crehan Research, 2016
Distances, Speeds Drive Optics/Electrical Transition

Flexible reach with Single Mode Fiber & Multimode Fiber
Cost Effective DSP-based PAM Optical Interconnects

Source: Corning
Data Center Switch/Optics Transitions

100G

3.2/6.4Tb

- 28/256x25G NRZ
- 4x25G (NRZ)
- Others...

200G/400G

6.4/12.8Tb

- 128/256x50G PAM4
- 8x50G (PAM4)
- Others...

400G/800G

12.8/25Tb

- 128/256x100G PAM4
- nx100G (PAM4)
- Others...

Switch ASICs

- Barefoot
- Mellanox
- Innovium

Public Announcements

- SR4
- PSM4
- CWDM4
- QSFP28
- LR4
- ColorZ
- CLR4
- OSFP
- DR4
- QRFP-DD
- SR8
- FR4
- ZR
- LR8
- FR8

Inphi Proprietary
### Industry Leading NRZ and PAM Optical PHY Solutions

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Service Provider</th>
<th>Data Center</th>
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<tbody>
<tr>
<td>Server Line Card</td>
<td>CFP</td>
<td>QSFP</td>
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<tr>
<td></td>
<td>CFP2/8</td>
<td>SFP</td>
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<td></td>
<td></td>
<td>OSFP and QSFP-DD</td>
</tr>
</tbody>
</table>

- nx10G PHY
- 100G Gearbox
- nx25G CDR
- nx50G PAM
- nx100G PAM
Roadmap to Lower Cost, Higher Density

Router
- 2012: CFP 12W-24W
- 2014: CFP2 12W-14W
- 2015 onwards: QSFP 3.5W
- CFP8
- PAM4
- QSFP DD
- OSFP

Switch
- 2015 onwards: QSFP 3.5W
- PAM4
- QSFP DD
- OSFP

Server
- 2012: N x 10G SFP
- 2015: N x 10/25G SFP

Enterprise Server SOC Inflection

Higher Density  Lower Power  Lower Cost
**Polaris™ 400G MMF Platform**

**OSFP/QSFP-DD 400GE**

- **400G PAM4 Retimer**
  - 8x50GAUI (VSR)
  - 8:8 Retimer
  - 8xPAM4

- **Regulators & Supervisory Micro & REFCLK, etc.**

- **TOSA**
  - IN2814 (x2)
  - Laser
  - Optical Mux

- **ROSA**
  - IN2865TA (x2)
  - PD Array
  - Optical Demux

**Connections**

- 8x50G PAM4
- 8 λ 50G
Polaris 400G SMF Platform

**OSFP/QSFP-DD 400GE**

- **400G PAM4 Retimer**
  - 8x50GAUI (VSR)
  - 8:8 Retimer
  - 8xPAM4
  - **IN015050**
  - Regulators & Supervisory Micro & REFCLK, etc.

- **TOSA**
  - DRV
  - Laser
  - Optical Mux
  - IN2834 (x2)

- **ROSA**
  - TIA
  - PD Array
  - Optical Demux
  - IN2864LP (x2)

- **8 x 50G PAM4**

- **8 x 50G**
## Growing Networking Interconnects
### Inside Data Centers and for Service Providers

- Products focused on 100G, 200G, 400G port growth
- Leading solutions for 400G OSFP and QSFP-DD
- PAM4 based switches shipping – market enabled
- Inphi solution with PAM4 DSP, TIA, and Driver
- Inphi design wins on multiple modules and linecards
- Address both single and multi-mode fiber
- Partner with VCSEL, DML, EML and SiPho optics
Thank You