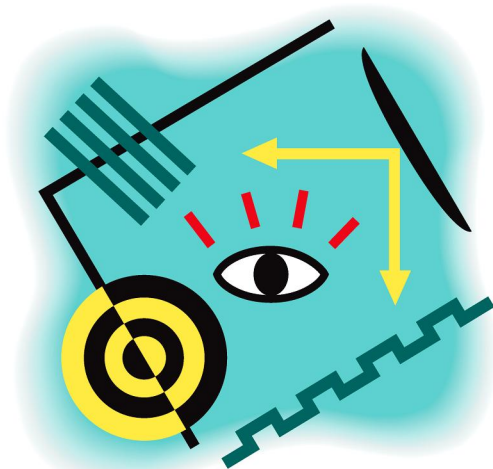


# Dynamic Gain Equalizer



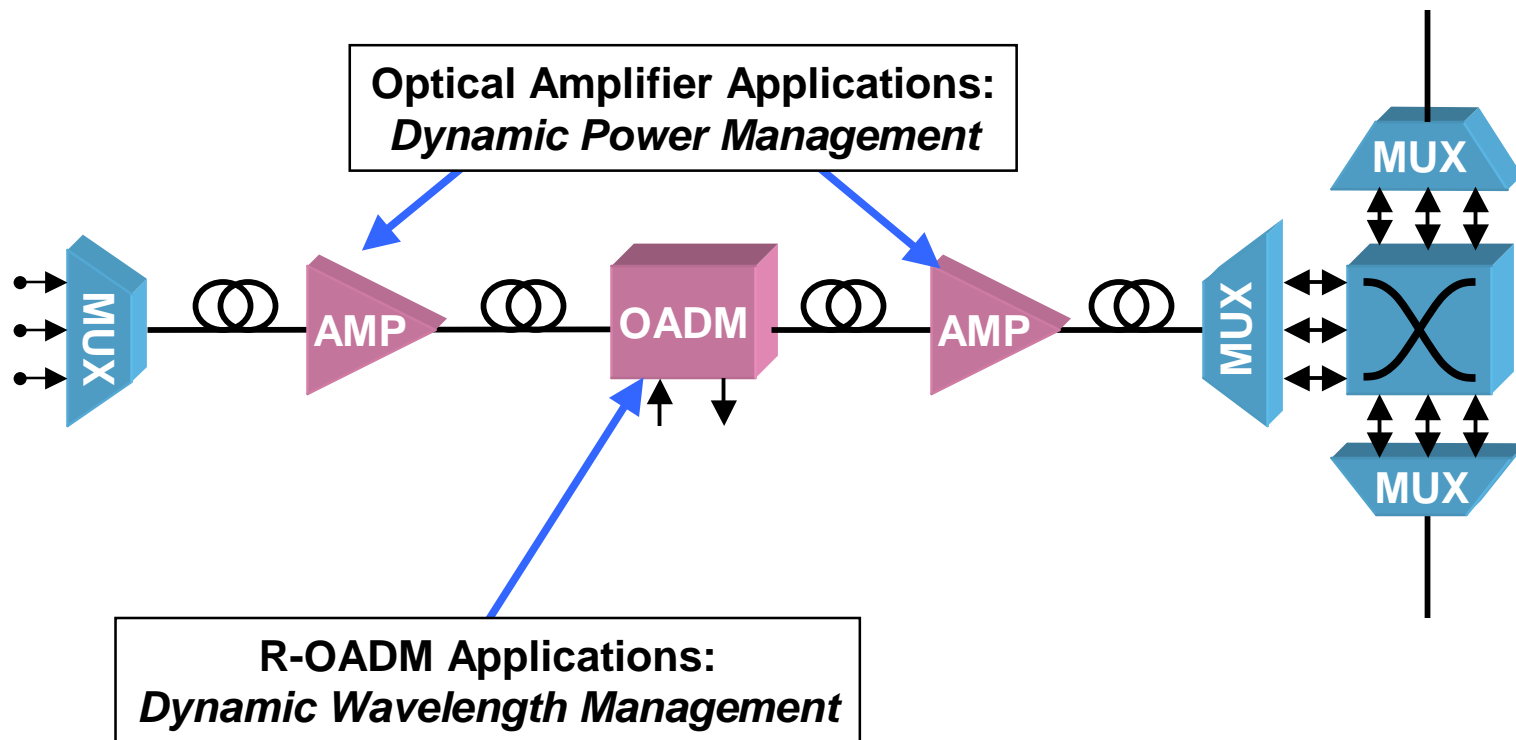
**SILICON  
LIGHT  
MACHINES**

A **SCREEN** COMPANY

# Applications in Optical Networks

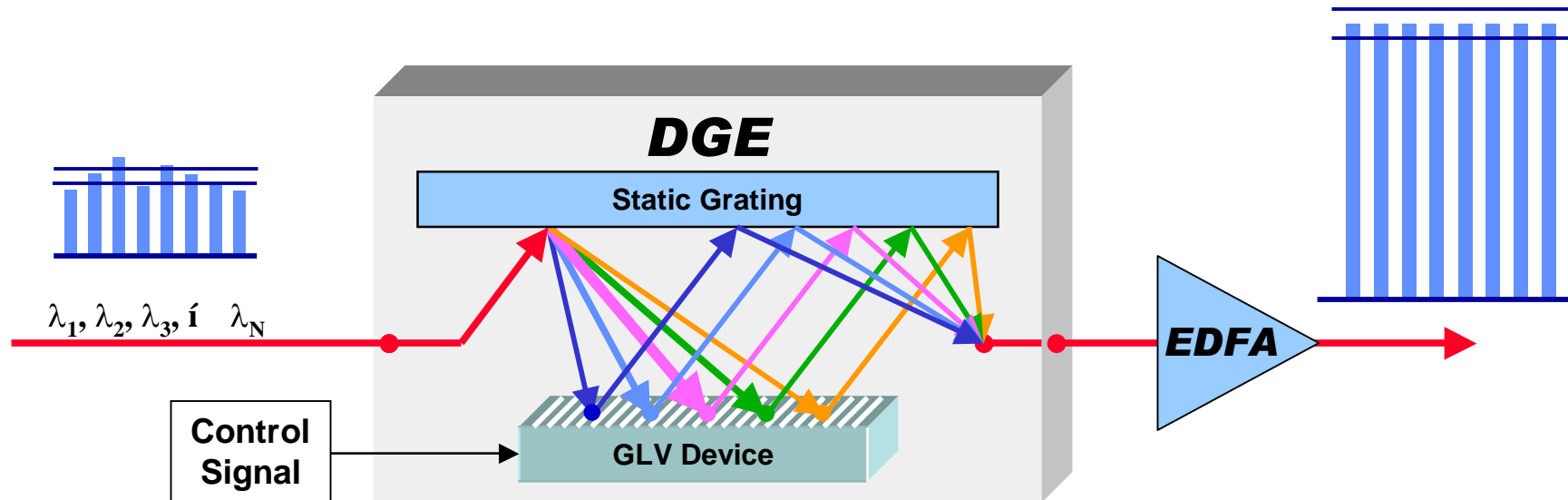


Target applications for GLV-based products in optical networks to dynamically manage DWDM channels.



# Dynamic Gain Equalizer

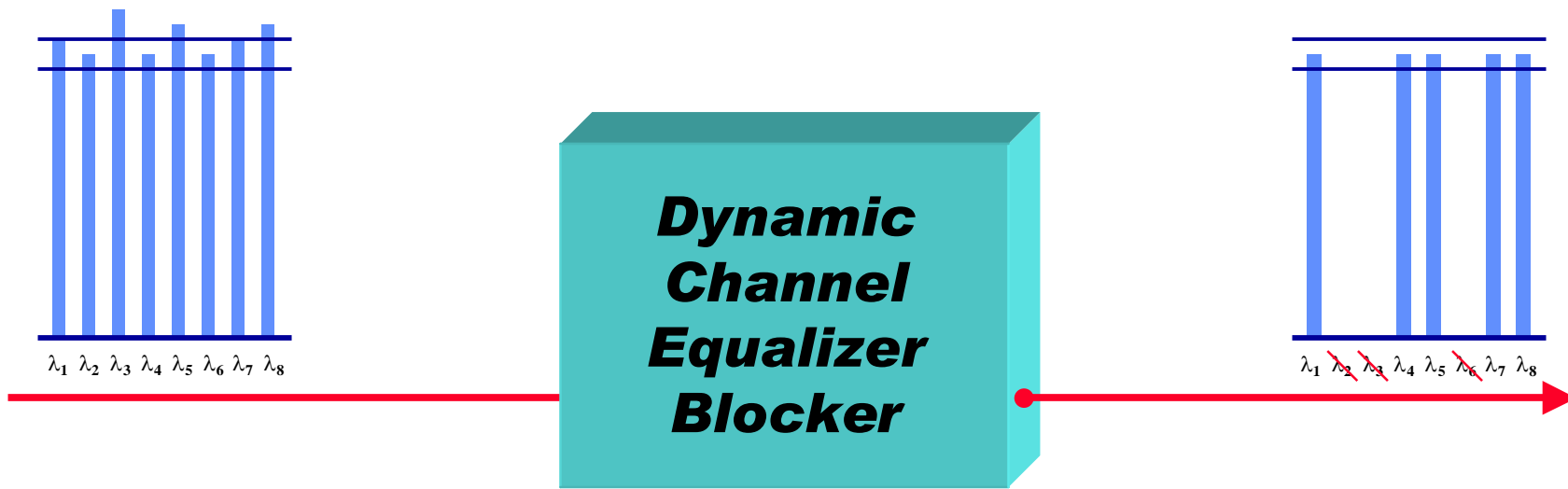
## Principle of Operation



- **Flattest DWDM Power Profile**
  - Improve your OSNR
  - Reduce your system cost
  - Extend the reach of your DWDM system
- **Single Product: Any Channel Spacing & Any Bit-Rate**
  - Flexibly manage the DWDM spectrum
  - Future proof
  - Reduce your inventory and spares cost
- **Proven technology from a proven supplier**

# Dynamic Channel Equalizer/ Blocker

## Product Description



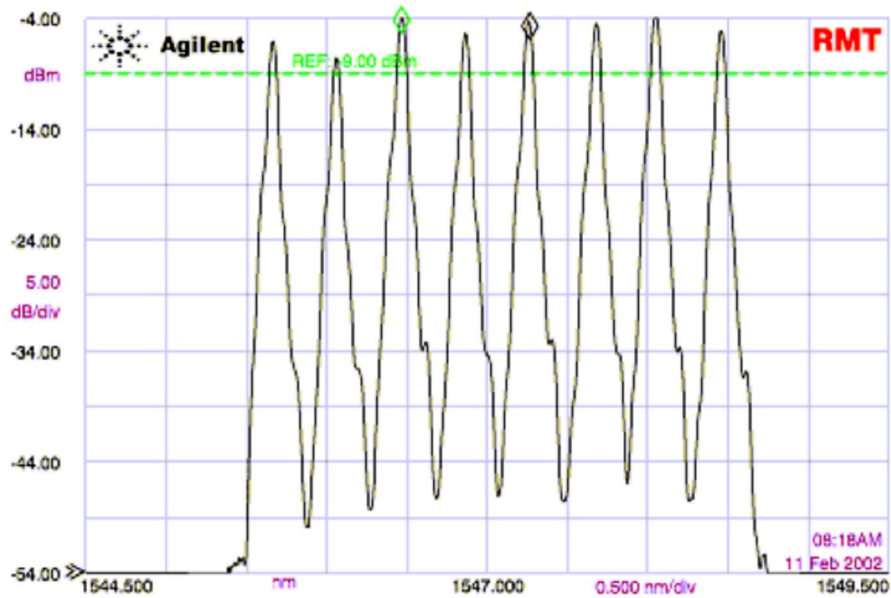
- ➔ **High Extinction Ratio:** Blocks channels to  $> 30$  dB
- ➔ **Arbitrary Configuration:** Block any single channel or groups
- ➔ **Block AND Equalize:** GLV device provides both functions
- ➔ **Robust & Reliable:** Technology proven over 5 trillion cycles

# Prototype Results

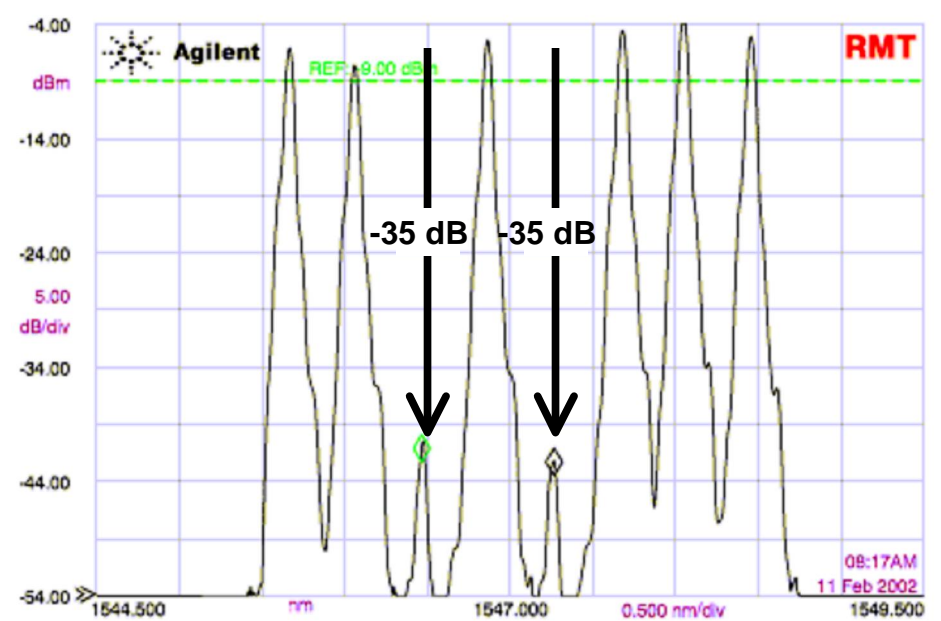
## 50 GHz Channel Spacing



### PASS ALL CHANNELS

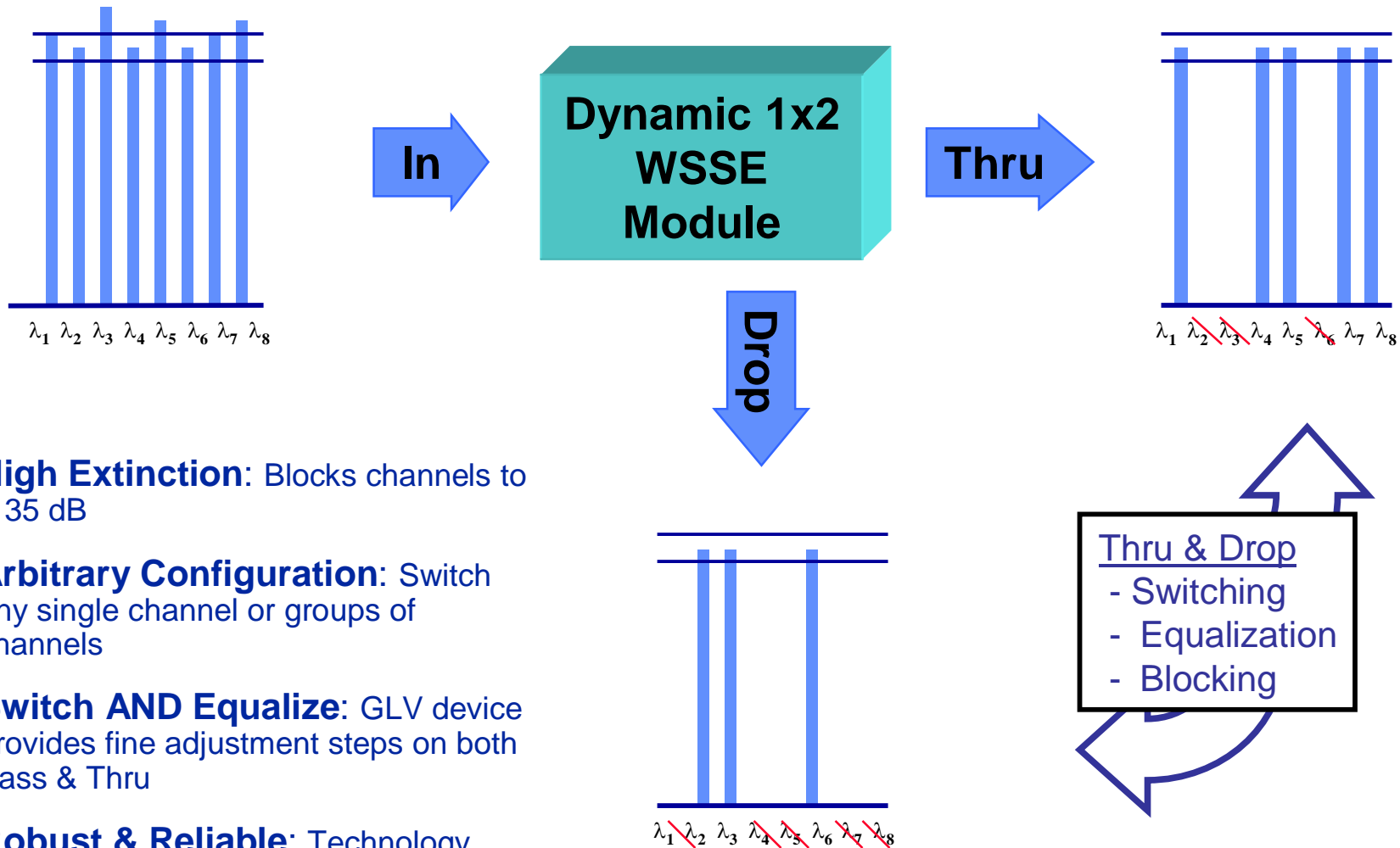


### TWO CHANNEL DROP



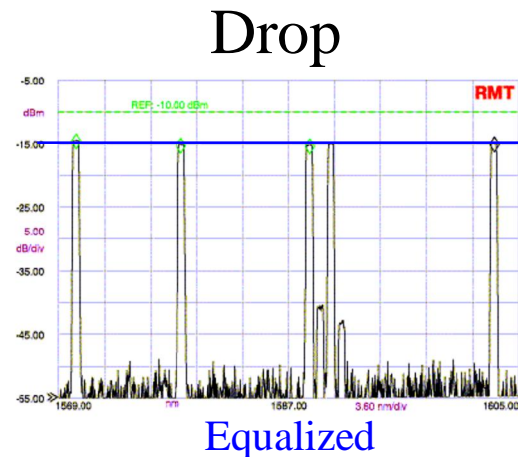
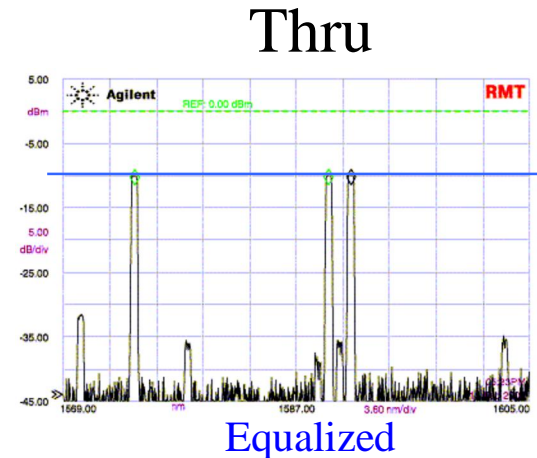
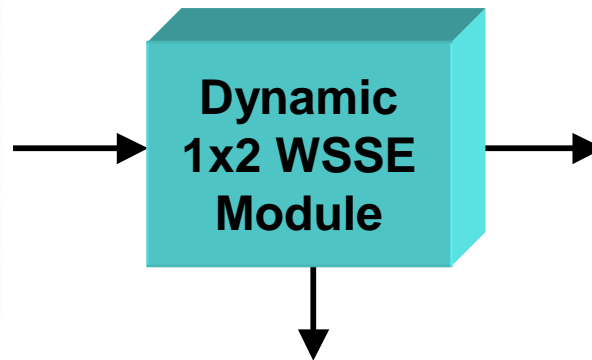
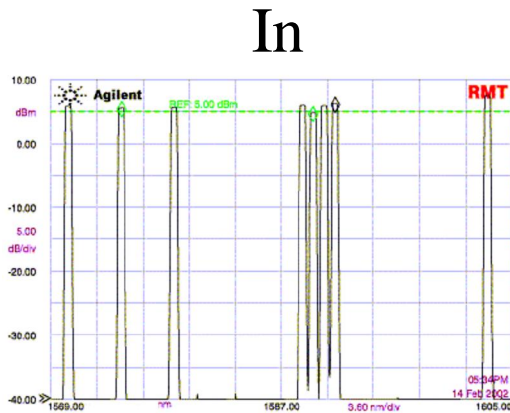
# Dynamic 1x2 WSSE

## Drop and Equalization Characteristics



- ➔ **High Extinction:** Blocks channels to > 35 dB
- ➔ **Arbitrary Configuration:** Switch any single channel or groups of channels
- ➔ **Switch AND Equalize:** GLV device provides fine adjustment steps on both Pass & Thru
- ➔ **Robust & Reliable:** Technology proven over 5 trillion cycles

# Prototype 100 GHz E Switched AND Equalized



Insertion loss (Thru) 6dB  
Extinction ratio 30dB  
100GHz channel spacing