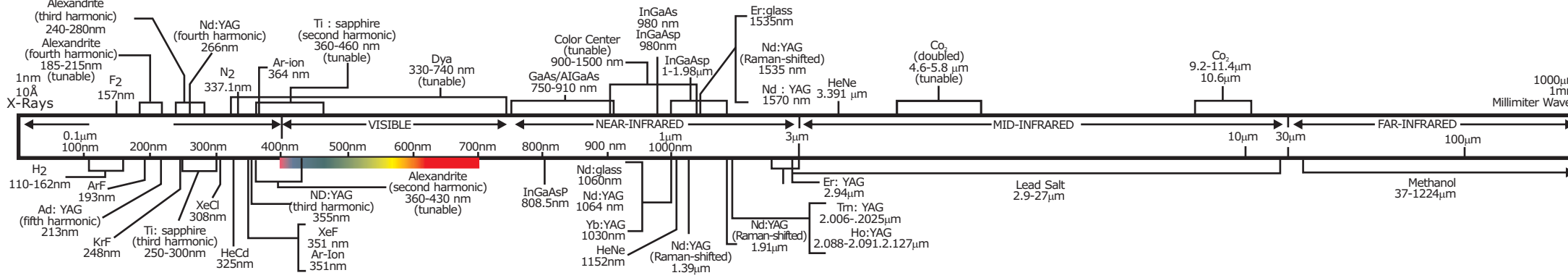




Commercial Laser Lines



The photonic spectrum wall chart displays the major commercial laser lines, detectors and optical materials in the ultraviolet to the far-infrared and beyond. Space limitations make it impossible to include all available lasing media and particularly in the crowded areas of the visible spectrum and the near-infrared, we were forced to limit their multiple secondary lines to the more familiar. In drawing the full spectrum band, legibility received a higher priority than accurate scale or proportion. Also include is a convenient table of equations, formulas and references for various applications in the photonics industry.

Commonly Used References

Conversion Equations

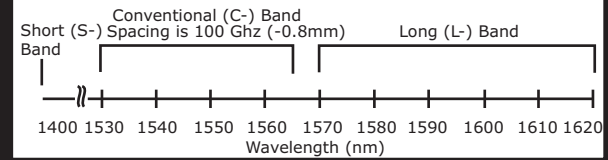
Wavelength to wave numbers : wave number (cm⁻¹) = 10⁷/λ(nm)

Wavelength to frequency : ν (Hz) = 2.998 × 10¹⁵/λ(nm)

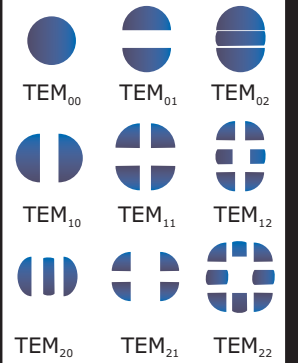
Wave numbers to frequency : ν(Hz) = 2.998 × 10¹⁰ × wave number (cm⁻¹)

OC-3/ATM = 155 Mb/s OC-192/STM-64 = 10Gb/s
 OC-12/SONET=622Mb/s OC-768/STM-256 = 40GB/s
 OC-48/STM-16=2.5 Gb/s
 Power loss (mW) to decibels (dbm):
 Dbm = 10 log (input power) 10 log (output power)

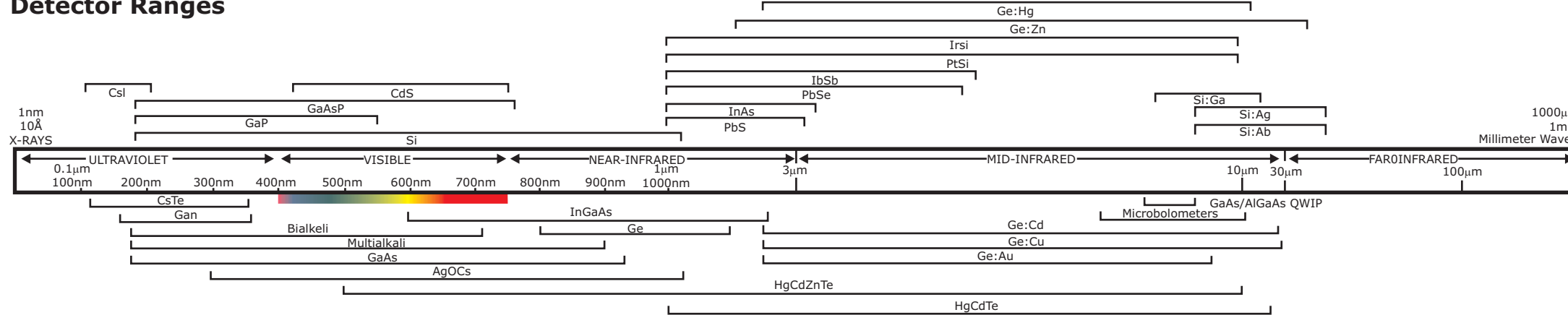
International Telecommunications Grid



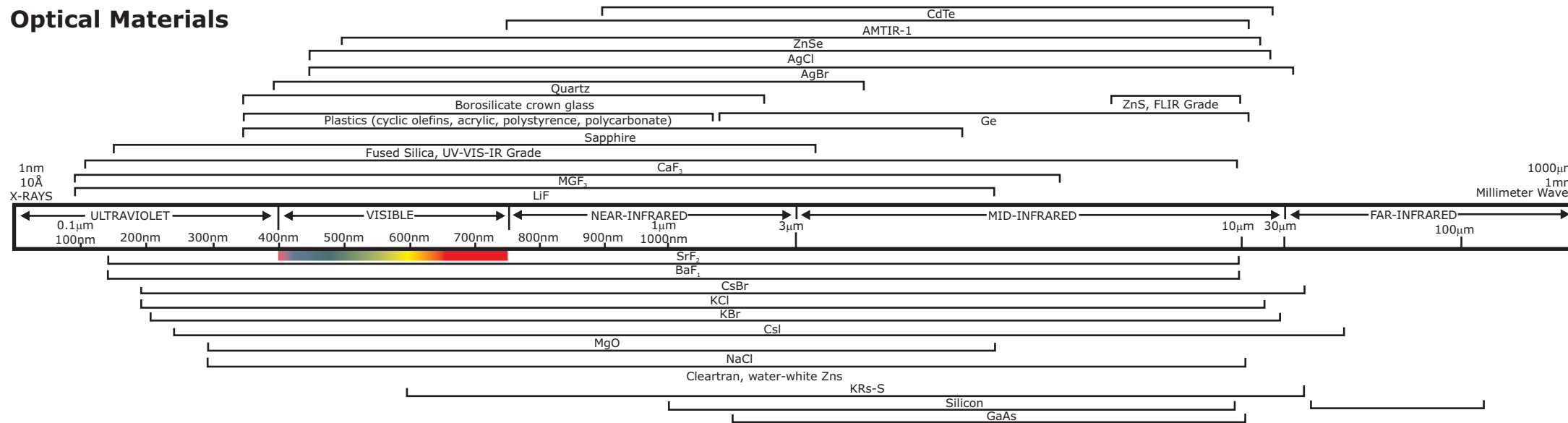
Transverse Electromagnetic Modes



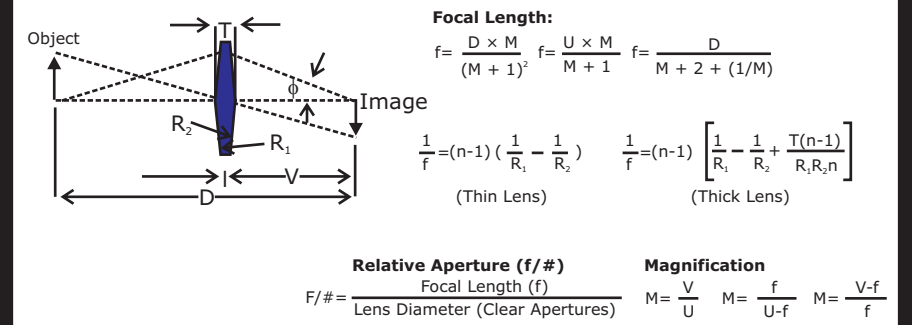
Detector Ranges



Optical Materials



Common Lens Formulas



Turnkey Solution For Complete Fiber Optic Laboratory

- ! Fibre-Optic Simplex Analogue Transceiver Trainer
- ! Fibre-Optic Simplex Digital Transceiver Trainer
- ! Advanced Fibre-Optic Analogue Transceiver Trainer
- ! Advanced Fibre-Optic Digital Transceiver Trainer
- ! Fibre-Optic trainer for numerical aperture and fibre loss measurement
- ! Fibre Optic voice transmitter and receiver trainer
- ! Laser Fibre Optic Trainer
- ! Physics of Fiber Optics Trainer
- ! Digital Fibre-Optic Power Meter

