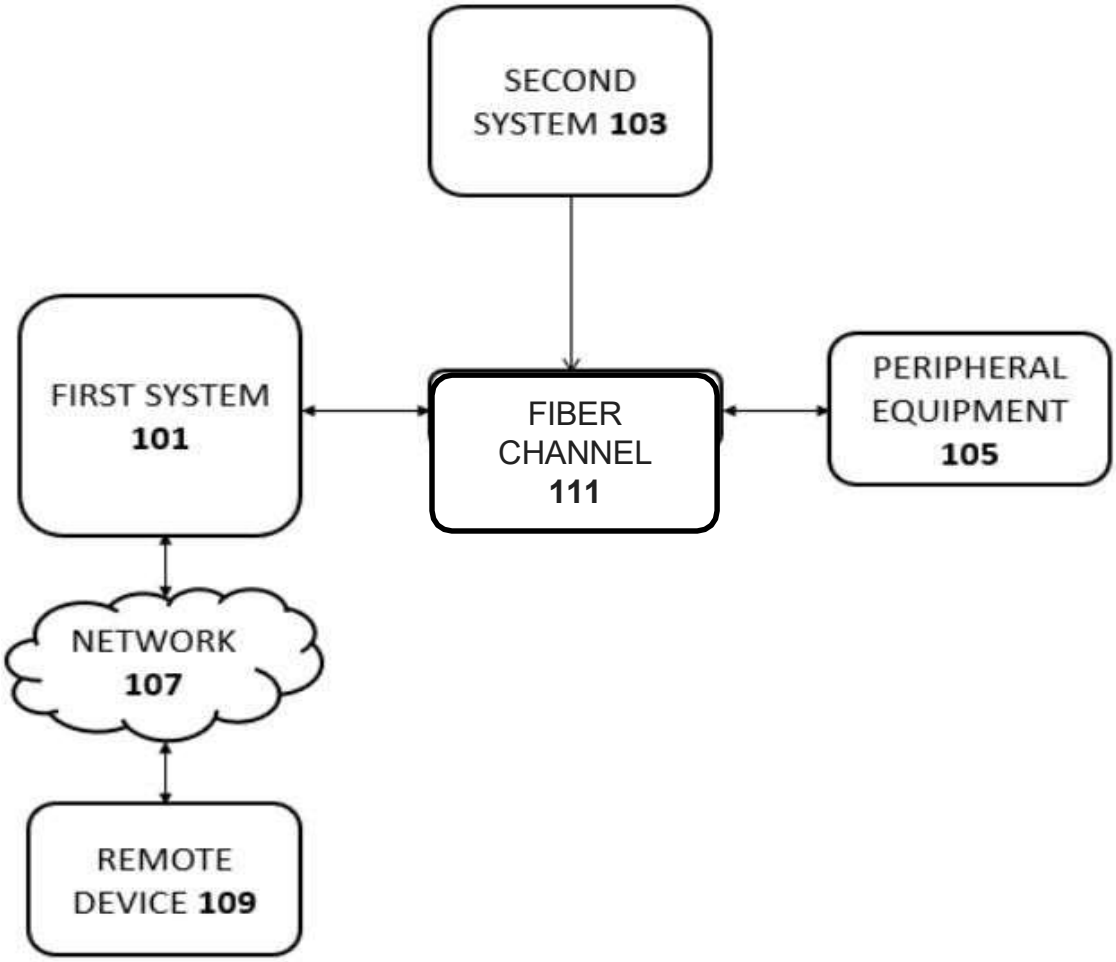

SECOND SYSTEM 103
FIRST SYSTEM 101
FIBER CHANNEL 111
PERIPHERAL EQUIPMENT 105
NETWORK 107
REMOTE DEVICE 109

FIG.1A

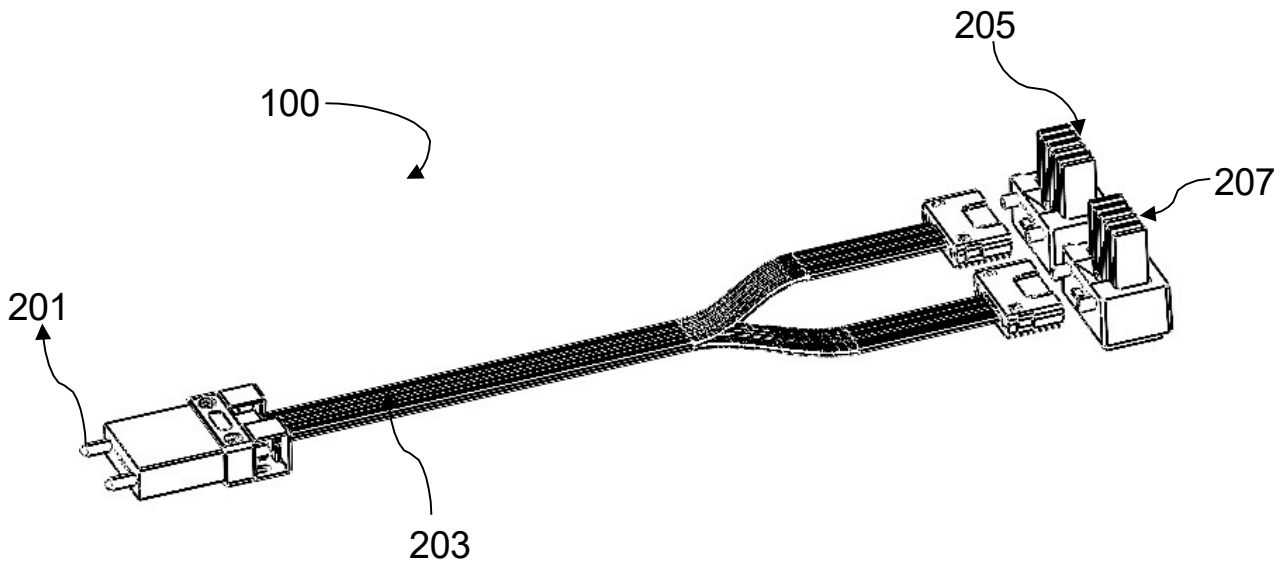


FIG.1B

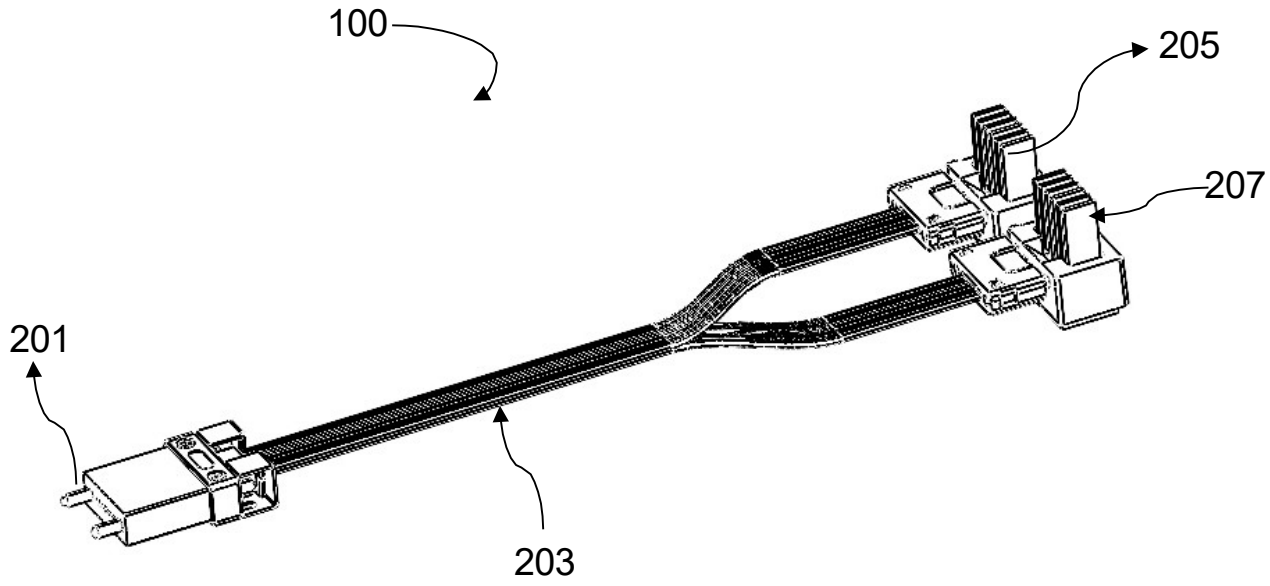


FIG.1C

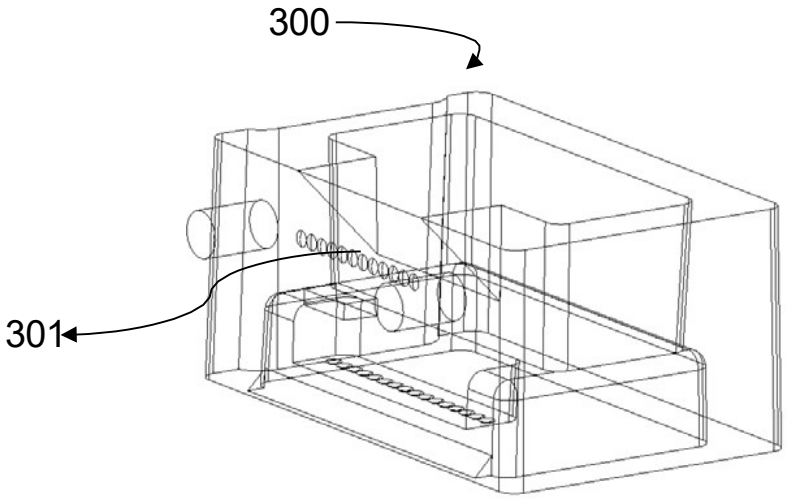


FIG.2A

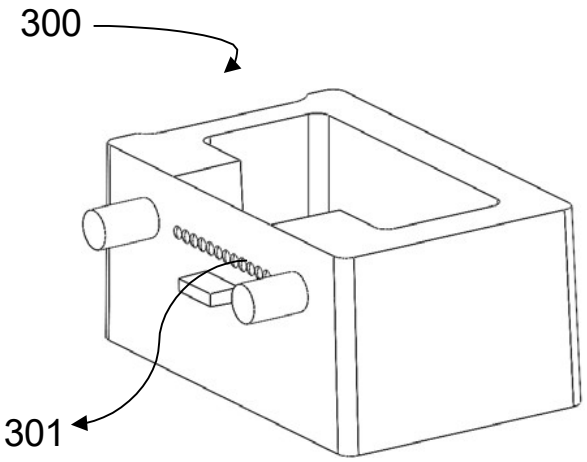


FIG.2B

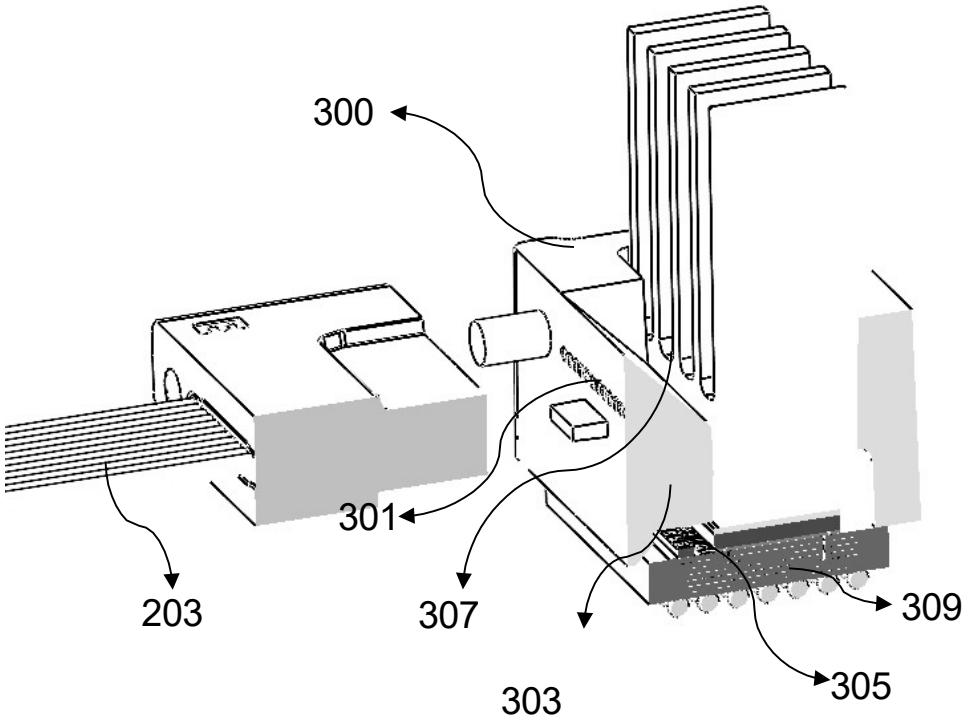


FIG.2C

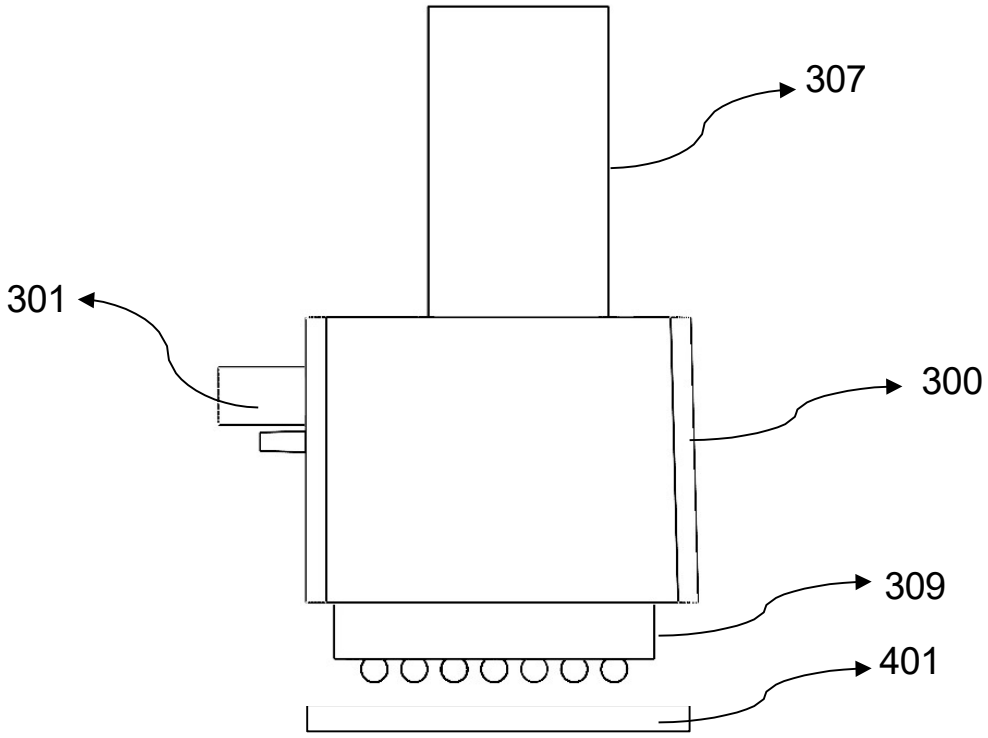


FIG.3A

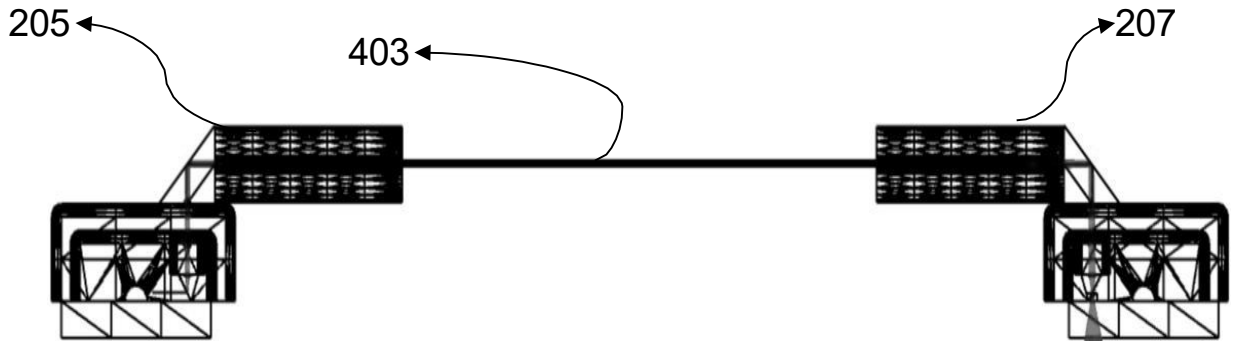

205
403
207

FIG.3B

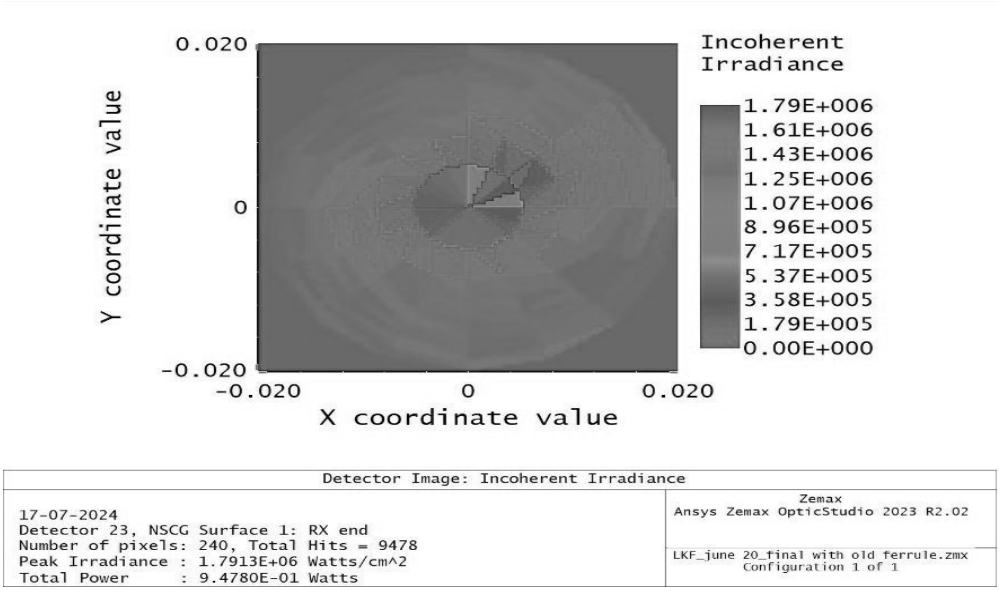

Incoherent
Irradiance
1.79E+006
1.61E+006
1.43E+006
1.25E+006
1.07E+006
8.96E+005
7.17E+005
5.37E+005
3.58E+005
1.79E+005
0.00E+000
0.020
0
-0.020
Y coordinate value
-0.020
0
0.020
X coordinate value
Detector Image: Incoherent Irradiance
17-07-2024
Detector 23, NSCG Surface 1: RX end
Number of pixels: 240, Total Hits = 9478
Peak Irradiance : 1.7913E+06 Watts/cm^2
Total Power : 9.4780E-01 Watts
Zemax
Ansys Zemax OpticStudio 2023 R2.02
LKF_june 20_final with old ferrule.zmx
Configuration 1 of 1

FIG.3C

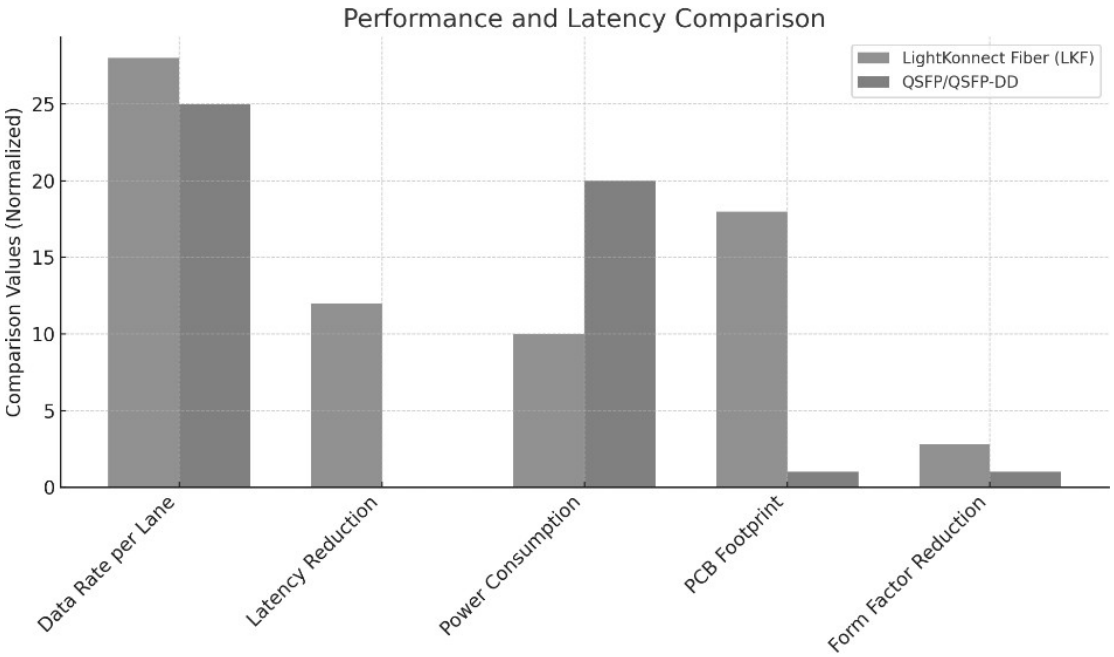

Performance and Latency Comparison
LightKonnect Fiber (LKF)
QSFP/QSFP-DD
Comparison Values (Normalized)
0
5
10
15
20
25
Data Rate per Lane
Latency Reduction
Power Consumption
PCB Footprint
Form Factor Reduction

FIG.4A

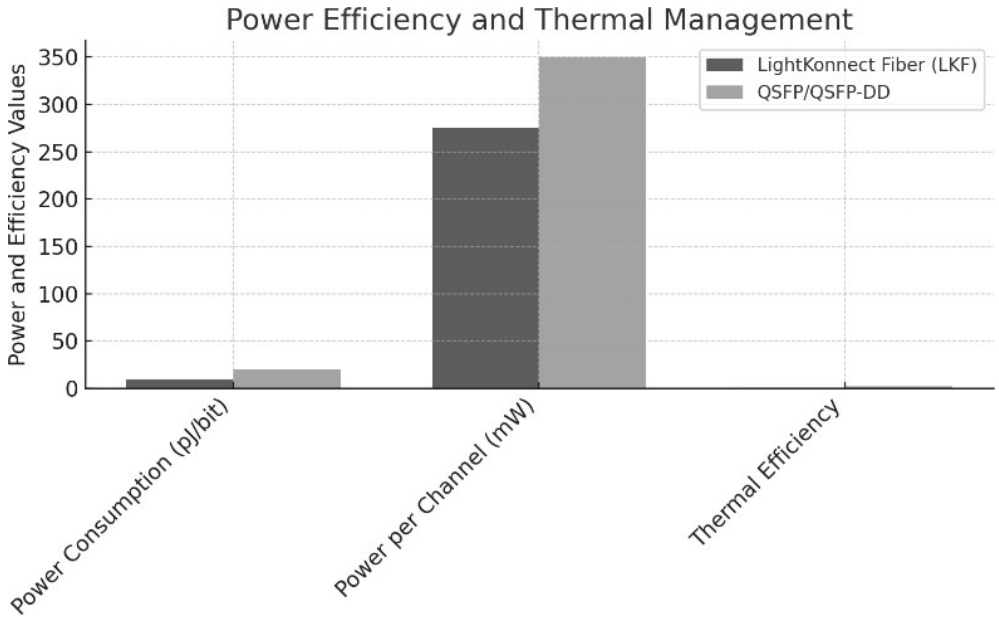

Power Efficiency and Thermal Management
LightKonnect Fiber (LKF)
QSFP/QSFP-DD
Power and Efficiency Values
0
50
100
150
200
250
300
350
Power Consumption (pJ/bit)
Power per Channel (mW)
Thermal Efficiency

FIG.4B

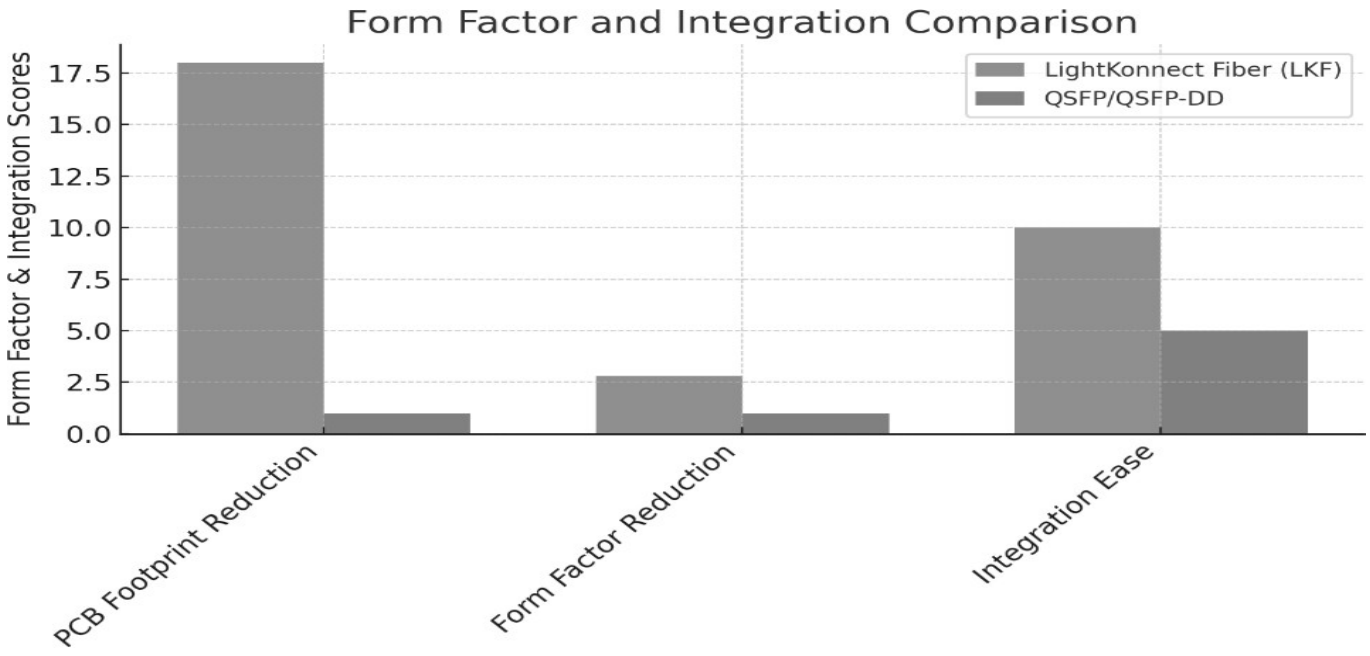

Form Factor and Integration Comparison
Form Factor & Integration Scores
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
LightKonnect Fiber (LKF)
QSFP/QSFP-DD
PCB Footprint Reduction
Form Factor Reduction
Integration Ease

FIG.4C