

Optical Module Single-Mode vs Multi-Mode

Choosing between single-mode and multi-mode optical modules depends on the specific requirements of your network application, including transmission distance, bandwidth needs, cost ...

Optical Modules differ by fiber count and mode: single/dual fiber affects cabling, while single-mode/multi-mode impacts distance and speed in networks.

In this blog, BlueOptics introduces you to both fiber types of SFP modules, multi-mode and single-mode, and highlights the aspects in which they differ.

Is your data center or campus network best served by Single Mode or Multimode Optical Modules? Choosing between Single Mode and Multimode Optical Modules will shape cost, reach and upgrade ...

Compare single-mode and multi-mode fiber optics--distance, cost and performance--to choose the best option for your network setup.

Single-mode and multimode fiber differ in distance, cost, and performance. Learn their key advantages, applications, and how to choose the right type.

There are two main types of fiber optic cables: single mode and multimode. Although they can do the same job in some instances, the different construction methods make each of them better ...

They enable flexible, hot-swappable connectivity between switches, routers, and fiber optic cables. When choosing SFPs, two broad categories often surface: single-mode (SM) and multi ...

What Is Single Mode and What Is Multimode?Single Mode vs. Multimode Fiber: Key DifferencesIs Multimode Better?Choosing The Right Fiber Optic CableSingle mode and multimode fiber optic cables are two different types of fiber optic cable aimed at different use cases. Single mode cables are typically made with a single strand of glass at their core, leading to a narrower core of the cabling, and more robust signal integrity over greater distances. They can be further divided into OS1 and OS2 ca...See more on cablematters

.product-card-container{margin:0 -20px;position:relative;display:block}.product-card-container .cmuipcm-content-cntr__base-info{min-height:unset}.product-card-container merce-ui-image-wrapper__image-container .cico img{vertical-align:middle}.product-card-container .cmuipcm-meta-data.cmuipcm-meta-data--hoverable{display:none}#b_results .shoppingCollageAcfCarouselCard,#b_results .shoppingCollageAcfGridCard{width:100%;height:auto}.big-height-product-card-container.shpcplg-art .product-card-content .cmuipcm-content-cntr__title{-webkit-line-clamp:2}.shpcplg-art .product-card-content

Optical Module Single-Mode vs Multi-Mode

```
.cmuipcm-content-cntr__title{-webkit-line-clamp:1}.product-card-hoverable-template{display:none}.shop-image-collage{display:-webkit-box;display:-webkit-flex;display:-moz-flex;display:-ms-flexbox;display:flex;-webkit-box-pack:justify;-ms-flex-pack:justify;justify-content:space-between;-webkit-box-align:stretch;-ms-flex-align:stretch;align-items:stretch}.shop-image-collage+.shop-image-collage{margin-top:16px}.product-card-content,.product-card-content .product-card-normal,.product-card-content .product-card-normal
merce-ui-product-card-medium__target-link{height:100%}.products-wrapper-slide{position:relative;min-height:200px}.products-wrapper-slide .b_overlay
.btn{height:48px;width:36px;top:50%;margin-top:-24px}.products-wrapper-slide .b_overlay .btn
.bg{background-color:unset;opacity:0}.products-wrapper-slide .b_overlay
.btn.acfdefaultchev.next{right:-18px!important}.products-wrapper-slide .b_overlay
.btn.acfdefaultchev.prev{left:-18px!important}.products-wrapper-slide
.slide{box-shadow:none!important;height:100%}.product-card-normal:focus,.product-card-normal:focus-visible{border-radius:16px}
merce-ui-product-card-medium .cmuipcm-content-cntr .cmuipc-seller
.cico{border-radius:3px}.b_dark .products-wrapper-slide .b_slidebar .slide,.b_drk .products-wrapper-slide
.b_slidebar .slide{background-color:unset!important}body>
-product-card-hoverable-overlay{position:absolute;z-index:4;pointer-events:auto;opacity:0;overflow:visible;transition:opacity .15s ease-in-out}body>
-product-card-hoverable-overlay.hoverable-visible{opacity:1}body>
-product-card-hoverable-overlay
merce-ui-product-card-medium__target-link{min-height:100%}#bpage
.products-wrapper-slide .b_slidebar{padding-left:16px;padding-right:16px}#b_results
.product-card-container{margin:0}.b_acf_card{box-sizing:border-box;border-radius:var(--mai-smtc-corner-card-default);-webkit-user-select:none;user-select:none;position:relative;width:100%;height:100%;position:relative}.b_acf_card.b_acf_bckgnd{background:var(--bing-smtc-background-card-on-primary-alt-rest)}.b_acf_card_link{border-radius:var(--mai-smtc-corner-card-default);outline-offset:-1px;position:absolute;width:100%;height:100%}.b_acf_card_link:hover{text-decoration:unset}.acf_col1_4{width:140px}.acf_col1_6{width:160px}@media(forced-colors:active){.b_acf_card_link{background-color:unset}.b_acf_card
.acf_t_c_title{color:LinkText!important}.acf_col1{width:88px}.acf_col2{width:200px}.acf_col3{width:312px}.acf_col4{width:424px}.acf_col5{width:536px}.acf_col6{width:648px}.acf_col7{width:760px}.acf_col8{width:872px}.acf_col9{width:984px}.acf_col10{width:1096px}.acf_col11{width:1208px}.acf_col12{width:1320px}.acf_row1{height:88px}.acf_row2{height:200px}.acf_row3{height:312px}.acf_row4{height:424px}.acf_row5{height:536px}.acf_row6{height:648px}.acf_row7{height:760px}.acf_row8{height:872px}.acf_row9{height:984px}.acf_row10{height:1096px}.acf_row11{height:1208px}.acf_row12{height:1320px}.b_slideexp{margin-bottom:20px;position:relative}.b_ans>.b_slideexp>.slide:last-child,.b_ans>.b_slideexp:last-child,.b_vPanel .b_slideexp:last-child{margin-bottom:0;padding-bottom:0}.b_slidebar
.slide{display:inline-block;vertical-align:top}.b_slidebar .slide,.b_slideexp
.b_viewport{overflow:hidden}.b_slideexp
.b_viewport{margin:auto}.b_slidebar{white-space:nowrap}.b_slidebar
.slide{white-space:normal;position:relative}.b_cards .cico,.b_slidebar .slide
.cico{border-radius:0}.b_slidebar,.b_slidebar .slide{width:100%}.b_slidebar.anim{transition:margin-left .35s cubic-bezier(.15,.85,.35,1)}.slide>.spinner{position:absolute;left:50%}.slide>.spinner>
ner{position:relative;left:-50%;width:40px;height:40px;background:url(/rp/OJWYLxkTdSOmE7-V53KpAdO
```

Optical Module Single-Mode vs Multi-Mode

```

j-xY.gif) no-repeat;margin:40px auto
30px;z-index:1000}.slide_mask.hideSlideMask{visibility:hidden}.b_slidebar.b_autoslidingfade
.slide.slide_fading{opacity:1}.slide_mask,.b_slidebar.b_autoslidingfade .slide{transition:opacity .3s
linear}.slide_mask.slide_fading,.b_slidebar.b_autoslidingfade
.slide{opacity:0}.slide_mask{position:absolute;width:100%;height:100%;opacity:.7;top:0}.carousel_seemore{
text-align:center}.carousel_seemore.dark a{color:#fff}.b_slidebar.enable_selecting
.slide.selected::after,.b_slidebar.enable_selecting .slide:hover::after{box-shadow:inset 0 0 0 2px
#fff}.b_slidebar .slide.selected::after,.b_slidebar .slide:focus::after{box-shadow:inset 0 0 0 2px
#0099bc}.b_slidebar.enable_selecting .slide.selected::after,.b_slidebar.enable_selecting
.slide:hover::after,.b_slidebar .slide.selected::after,.b_slidebar
.slide:focus::after{content:"";height:100%;width:100%;position:absolute;left:0;top:0}.b_slideexp
.b_antiSideBleed{display:inline-block}.carousel_seemore>.b_moreLink.rndChev{vertical-align:middle;height
:92px;text-decoration-color:#444;display:inline-block}.carousel_seemore
.seeAll_txt{display:block;color:#444;line-height:17px}.carousel_seemore
.seeAll_chev{display:block;height:48px;padding-bottom:12px;margin-top:15px}html[dir="rtl"]
.carousel_seemore .seeAll_chev{transform:scaleX(-1)}.b_slideexp
.b_viewport.scrollbar{overflow-x:auto;-ms-overflow-style:none;scrollbar-width:none}.b_slideexp
.b_viewport.scrollbar::-webkit-scrollbar{display:none}.b_slideexp
.b_viewport{-webkit-overflow-scrolling:touch}.b_overlay{position:relative}.b_overlay
.btn{height:100%;position:absolute;width:20px;cursor:pointer;z-index:1;-moz-user-select:none;-khtml-user-se
lect:none;-webkit-user-select:none;-o-user-select:none;-ms-user-select:none;user-select:none}.b_overlay .btn
*{transition:opacity .3s linear}.b_overlay .btn
.bg{position:absolute;width:100%;height:100%;background-color:#444;opacity:.3;filter:alpha(opacity=30)}.b
_overlay .btn.nobg .bg{background-color:transparent}.b_overlay .btn:hover
.bg{opacity:.7;filter:alpha(opacity=70)}.b_overlay .btn.nohover:hover
.bg{opacity:.3;filter:alpha(opacity=30)}.b_overlay .btn.disabled .bg,.b_overlay .btn.nohover.disabled
.bg{opacity:.01;filter:alpha(opacity=1)}.b_overlay .btn.hidden .bg,.b_overlay .btn.nohover.hidden
.bg{opacity:.01;filter:alpha(opacity=1)}.b_overlay .btn.disabled,.b_overlay
.btn.hidden{cursor:default}.b_overlay .btn .cr{text-align:center;line-height:0}.b_overlay
.btn.bld.polecarchev.hidden .cr,.b_overlay .btn.bld.polecarchev.disabled .cr,.b_overlay
.btn.bld.rounded.hidden .cr,.b_overlay .btn.bld.rounded.disabled .cr,.b_overlay .btn.bld.bigrounded.hidden
.cr,.b_overlay .btn.bld.bigrounded.disabled .cr{opacity:.01;visibility:unset}.b_overlay .btn.hidden
.cr,.b_overlay .btn.disabled .cr{visibility:hidden}.b_overlay .btn.prev.ltr .cr,.b_overlay .btn.next.rtl
.cr{transform:scaleX(-1)}.b_overlay .btn.next{right:0}.b_overlay .btn .cr>div{background-size:40px
200px;background-repeat:no-repeat;width:20px;height:40px;background-position:-10px 0}.b_overlay .btn
.cr>div{background-image:url(/rp/S9IIHAMBBy7JxaR5m1KRvMwDswyw.png)}.b_overlay
.acfdefaultchev.btn.next{right:0!important}.b_overlay .acfdefaultchev.btn.prev{left:0!important}.b_overlay
.acfdefaultchev.btn:hover .bg{opacity:unset;filter:unset}.b_overlay .acfdefaultchev.btn.disabled,.b_overlay
.acfdefaultchev.btn.hidden{display:none}.b_overlay .acfdefaultchev.btn{width:48px}.b_overlay
.acfdefaultchev.btn .bg{opacity:unset}.b_overlay .acfdefaultchev.btn.prev .cr{left:0}.b_overlay

```

Optical Module Single-Mode vs Multi-Mode

```
.acfdefaultchev.btn.next .cr{right:0}.acfdefaultchev
.cr{display:flex;justify-content:center;align-items:center;flex:1 0
0;align-self:stretch;width:36px;height:48px;position:absolute;margin:unset;opacity:unset;transition:unset;border-radius:var(--smtc-corner-ctrl-lg-rest);background:var(--bing-smtc-background-container);box-shadow:var(--smtc-shadows-floating-action-button-rest);fill:var(--smtc-foreground-content-neutral-secondary)}.acfdefaultchev
.cr:active{background:var(--smtc-ctrl-fab-background-pressed)}.b_ofchev .acfdefaultchev.btn.prev
.cr{left:-18px}.b_ofchev .acfdefaultchev.btn.next
.cr{right:-18px}@media(forced-colors:active){.acfdefaultchev .cr{background:ButtonFace}.acfdefaultchev
.cr>svg{fill:ButtonText}.acfdefaultchev .cr:active,.acfdefaultchev
.cr:has(:focus-visible){background:Highlight}}.b_nochevshadow .acfdefaultchev .cr,.b_nochevshadow
.acfdefaultchev .cr:active,.b_nochevshadow .acfdefaultchev .cr:active,.b_nochevshadow .acfdefaultchev
.cr:focus{background:none!important;box-shadow:none!important}.b_overlay
.btn.bld.prev{left:-20px}.b_overlay
.btn.bld.next{right:-20px}.vcac{position:absolute;width:100%;top:50%}.vcac>div{position:relative;width:100%}[background="alpha-white"]{background-color:rgba(255,255,255,.8)}[background="rest-blue"]{background-color:#eff4fa}.b_dark [background="alpha-white"]{background-color:rgba(38,38,38,.8)}.b_dark [background="rest-blue"]{background-color:#292c33}
merce-ui-product-card-medium{display:flex;flex-direction:column;width:100%;max-width:360px;border-radius:var(--mai-smtc-corner-card-default)}
merce-ui-product-card-medium__target-link{display:flex;flex-direction:column;color:inherit;text-decoration:none}
merce-ui-product-card-medium__target-link:active,
merce-ui-product-card-medium__target-link:focus{text-decoration:none}
merce-ui-product-card-medium--hoverable{position:relative;padding:8px}
merce-ui-product-card-medium--hoverable::before{content:"";position:absolute;top:0;left:0;right:0;bottom:0;background-color:transparent;transform:scale(.93) translateZ(0);transform-origin:center;transition:transform .16s cubic-bezier(.4,0,.2,1),background-color 0s cubic-bezier(.4,0,.2,1)
.16s;z-index:0;border-radius:var(--mai-smtc-corner-card-default);will-change:transform;background-color;backface-visibility:hidden}
merce-ui-product-card-medium--hoverable:active::before{transform:scale(1) translateZ(0);background-color:var(--bing-smtc-background-card-on-primary-alt-hover);box-shadow:0 4px 12px 1px rgba(0,0,0,.14);transition:transform .16s cubic-bezier(.4,0,.2,1),background-color 0s cubic-bezier(.4,0,.2,1)}
merce-ui-product-card-medium--hoverable:active::before{background-color:var(--bing-smtc-background-card-on-primary-alt-pressed)}
merce-ui-product-card-medium--hoverable>div{position:relative;z-index:1}
merce-ui-product-card-medium--hoverable
.cmuipcm-content-cntr__title{transform:translateZ(0);backface-visibility:hidden;transition-property:max-height;transition-duration:.16s;transition-timing-function:cubic-bezier(.4,0,.2,1);will-change:max-height;overflow:hidden;-webkit-font-smoothing:antialiased;-moz-osx-font-smoothing:grayscale}
merce-ui-product-card-medium--hoverable
.cmuipcm-content-cntr__hashtags{transform:translateZ(0);backface-visibility:hidden;transition-property:max-
```

Optical Module Single-Mode vs Multi-Mode

```

height,opacity;transition-duration:.16s;transition-timing-function:cubic-bezier(.4,0,.2,1);will-change:max-height,opacity;overflow:hidden}
merce-ui-product-card-medium--hoverable .cmuipcm-image-cntr,
merce-ui-product-card-medium--hoverable merce-ui-image-wrapper,
merce-ui-product-card-medium--hoverable merce-ui-image-wrapper__image-container
.cico{transform:translateZ(0);backface-visibility:hidden;transition-property:border-radius;transition-duration:.16s;transition-timing-function:cubic-bezier(.4,0,.2,1);will-change:border-radius;overflow:hidden;-webkit-font-smoothing:antialiased;-moz-osx-font-smoothing:grayscale}
merce-ui-product-card-medium--hoverable
.cmuipcm-meta-data{transform:translateZ(0);transition-property:max-height,opacity;transition-duration:.16s;transition-timing-function:cubic-bezier(.4,0,.2,1);opacity:0;will-change:max-height,opacity;overflow:hidden}
merce-ui-product-card-medium--hoverable:hover .cmuipcm-image-cntr--zoom .cico{transform:scale(1.1)}
merce-ui-product-card-medium--hoverable:hover .cmuipcm-image-cntr,
merce-ui-product-card-medium--hoverable:hover merce-ui-image-wrapper,
merce-ui-product-card-medium--hoverable:hover merce-ui-image-wrapper__image-container
.cico{border-radius:var(--mai-smtc-corner-ctrl-xlg-rest)}
merce-ui-product-card-medium--hoverable.line-clamp-expanded
.cmuipcm-content-cntr__hashtags{max-height:24px;opacity:1;margin-top:0}
merce-ui-product-card-medium--hoverable.line-clamp-expanded
.cmuipcm-content-cntr__title{max-height:66px;transform:translateZ(0)}
merce-ui-product-card-medium--hoverable.line-clamp-expanded .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data.cmuipcm-meta-data--one~.cmuipcm-meta-data.cmuipcm-meta-data--one,
merce-ui-product-card-medium--hoverable.line-clamp-expanded .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data.cmuipcm-meta-data--hoverable,
merce-ui-product-card-medium--hoverable.line-clamp-expanded .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data.cmuipcm-meta-data--one,
merce-ui-product-card-medium--hoverable.line-clamp-expanded .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data{max-height:20px;opacity:1;margin-top:0}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-content-cntr__title{max-height:44px}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-content-cntr__title[data-rows="1"]{-webkit-line-clamp:1;max-height:22px}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-content-cntr__title[data-rows="2"]{-webkit-line-clamp:2}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-content-cntr__title[data-rows="3"]{-webkit-line-clamp:3;max-height:66px}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-meta-data.cmuipcm-meta-data--hoverable{max-height:0;opacity:0;margin-top:-2px}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-meta-data.cmuipcm-meta-data--one{max-height:20px;opacity:1;margin-top:0}
merce-ui-product-card-medium--hoverable:not(.line-clamp-expanded)
.cmuipcm-meta-data.cmuipcm-meta-data--one~.cmuipcm-meta-data.cmuipcm-meta-data--one{max-height:0;o

```

Optical Module Single-Mode vs Multi-Mode

```

capacity:0;margin-top:-2px}.cmuipcm-image-cntr{display:flex;position:relative;overflow:hidden;border-radius:
var(--mai-smtc-corner-card-default)}.cmuipcm-image-cntr
merce-ui-image-wrapper{height:100%;width:100%;border-radius:var(--mai-smtc-corner-card-default)}.cmuip
cm-image-cntr
merce-ui-image-wrapper__image-container
.cico{background:#fafafa;border-radius:var(--mai-smtc-corner-card-default);transition:transform
.16s
ease}.cmuipcm-image-cntr
merce-ui-image-wrapper__image-container
.cico
img{mix-blend-mode:multiply}@media(forced-colors:active){.cmuipcm-image-cntr
merce-ui-image-wrapper__image-container
.cico
img{mix-blend-mode:normal}}.cmuipcm-badge{display:inline-block;background-color:#eff4fa;border-radius
:6px;padding:var(--smtc-gap-between-content-xxx-small)
var(--smtc-gap-between-content-x-small);font-family:"Segoe
Sans",-apple-system,BlinkMacSystemFont,"Segoe
UI",Roboto,sans-serif;font-size:14px;line-height:20px;font-weight:400;color:#1e2024;align-self:flex-start;whi
te-space:nowrap;text-overflow:ellipsis;overflow:hidden;max-width:calc(100%
-
12px)}.cmuipcm-rating-badge{position:absolute;top:8px;left:8px;background:var(--smtc-background-card-on
-primary-default-hover);border-radius:var(--smtc-ctrl-badge-corner);padding:var(--smtc-gap-between-content-
xxx-small)
var(--smtc-gap-between-content-x-small);display:flex;align-items:center;z-index:1}.cmuipcm-rating-badge
.ratingv2.snrnt.small-rtsgap:var(--smtc-gap-between-content-xxx-small);font-size:13px;line-height:20px}.cm
uipcm-rating-badge
.ratingv2.snrnt.small-rtsgap:var(--smtc-gap-between-content-xxx-small);font-size:13px;font-weight:400;line-height:20px;color:var(--smtc-foreground-content-neutral-pri
mary);margin-left:2px}.cmuipcm-content-cntr{display:flex;flex-direction:column;flex:1;padding-top:var(--sm
tc-padding-ctrl-text-top)}.cmuipcm-content-cntr__base-info{display:flex;flex-direction:column;gap:var(--smt
c-gap-between-content-xxx-small);padding:0
var(--smtc-gap-between-content-xx-small);min-height:74px}.cmuipcm-content-cntr__title{margin-bottom:var
(--smtc-gap-between-content-xxx-small);font:var(--bing-smtc-text-global-body3);color:var(--smtc-foreground
-content-neutral-primary);overflow:hidden;display:-webkit-box;-webkit-box-orient:vertical;-webkit-line-clam
p:2;max-height:44px}.cmuipcm-content-cntr__title[data-rows="1"]{-webkit-line-clamp:1;max-height:22px}.c
muipcm-content-cntr__title[data-rows="2"]{-webkit-line-clamp:2}.cmuipcm-content-cntr__title[data-rows="3
"]{-webkit-line-clamp:3;max-height:66px}.cmuipcm-content-cntr__hashtags{display:flex;flex-wrap:wrap;gap
:var(--smtc-gap-between-content-xx-small);margin-bottom:var(--smtc-gap-between-content-xx-small);overflow
:hidden;max-height:0;opacity:0;margin-top:calc(-1*(var(--smtc-gap-between-content-xx-small)
+
var(--smtc-gap-between-content-xxx-small)))}.cmuipcm-content-cntr__hashtags-item{background-color:var(-
-smtc-status-informative-tint-background);color:var(--smtc-foreground-content-neutral-secondary);border-radi
us:var(--smtc-ctrl-badge-corner);font:var(--bing-smtc-text-global-caption1);padding:var(--smtc-gap-between-c
ontent-xxx-small)
var(--smtc-gap-between-content-x-small);white-space:nowrap;text-overflow:ellipsis;overflow:hidden;max-wi
dth:100%}.cmuipcm-content-cntr
.cmuipc-seller{display:flex;flex-direction:row;align-items:center;gap:var(--smtc-gap-between-content-xx-smal
l)}.cmuipcm-content-cntr
.cmuipc-seller

```

Optical Module Single-Mode vs Multi-Mode

```
.fb-prvdr { width: 16px; height: 16px; border-radius: 3px } .cmuipcm-content-cntr
.cmuipc-seller__name { font: var(--bing-smtc-text-global-caption 1); color: var(--bing-smtc-foreground-content-neutral-secondary-alt); white-space: nowrap; text-overflow: ellipsis; overflow: hidden } .cmuipcm-content-cntr__row-wrapper { display: flex; flex-direction: column; align-items: flex-start; gap: var(--smtc-gap-between-content-xxx-small); flex-wrap: wrap } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data.cmuipcm-meta-data--hoverable { max-height: 0; opacity: 0; margin-top: -2px } .cmuipcm-content-cntr__row-wrapper .cmuipcm-meta-data.cmuipcm-meta-data--one, .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data: not(.cmuipcm-meta-data--hoverable) { max-height: 20px; opacity: 1; margin-top: 0 } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data.cmuipcm-meta-data--one~.cmuipcm-meta-data.cmuipcm-meta-data--one { max-height: 0; opacity: 0; margin-top: -2px } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data { display: flex; flex-direction: row; align-items: center } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data__icon { margin-right: 4px } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-meta-data__description { font: var(--bing-smtc-text-global-caption 1); color: var(--bing-smtc-foreground-content-neutral-secondary-alt) } .cmuipcm-content-cntr__row-wrapper
.cmuipcm-price-row__range, .cmuipcm-content-cntr__row-wrapper .cmuipcm-price-row__range
.price-container[size="small"] { font: var(--bing-smtc-text-global-caption 1-strong) }
merce-ui-product-card-medium-tp
.cmuipcm-content-cntr__title { margin-bottom: unset } .cmuipcm-price-row { display: flex; flex-direction: row; align-items: center; gap: var(--smtc-gap-between-content-xx-small) } .cmuipcm-price-row.cmuipcm-price-row--installment { align-items: flex-start; flex-direction: column; gap: var(--smtc-gap-between-content-xxx-small) } .cmuipcm-price-row.cmuipcm-price-row--installment .cmuipcm-price-row__og-price
.price-container[size="small"] { font: var(--bing-smtc-text-global-caption 1); color: var(--bing-smtc-foreground-content-neutral-tertiary) } .cmuipcm-price-row
.price-container[size="small"] { font: var(--bing-smtc-text-global-caption 1-strong) } .cmuipcm-price-row__range { display: flex; flex-direction: row; align-items: center; gap: var(--smtc-gap-between-content-xx-small) } .cmuipcm-price-row__cur-price
.price-container[color="neutral"] { font: var(--bing-smtc-text-global-caption 1-strong); color: var(--smtc-foreground-content-neutral-primary) } .cmuipcm-price-row: not(.cmuipcm-price-row--installment)
.cmuipcm-price-row__lw-price
.price-container[color="neutral"] { font: var(--bing-smtc-text-global-caption 1-strong); color: var(--smtc-status-success-tint-foreground) } .cmuipcm-price-row__og-price
.price-container[color="neutral"] { font: var(--bing-smtc-text-global-caption 2); line-height: 20px; text-decoration: line-through; color: var(--bing-smtc-foreground-content-neutral-tertiary) } .cmuipcm-free-shipping { font-size: 12px; line-height: 16px; color: #0f7b0f }
merce-ui-product-card-medium__target-link { position: relative }
merce-ui-product-card-medium__target-link: focus-visible { outline: 0 }
merce-ui-product-card-medium__target-link: focus-visible::after { content: ""; position: absolute; inset: 0; border: 2px solid #000; border-radius: inherit; pointer-events: none; z-index: 1 } .cmuipcm-sr-only { position: absolute; width: 1px; height: 1px; overflow: hidden; clip: rect(0,0,0,0); white-space: nowrap }
merce-ui-product-card-medium--hoverable
```

Optical Module Single-Mode vs Multi-Mode

```

merce-ui-product-card-medium .cmuipc-seller.cmuipc-seller--multi { opacity: 1 }
merce-ui-product-card-medium--hoverable merce-ui-product-card-medium
.cmuipcm-color-options { transform: translateZ(0); transition-property: max-height, opacity; transition-duration: .1
6s; transition-timing-function: cubic-bezier(.4, 0, .2, 1); opacity: 0; will-change: max-height, opacity; overflow: hidde
n } merce-ui-product-card-medium--hoverable merce-ui-product-card-medium.line-clamp-expanded
.cmuipcm-color-options { max-height: 20px; opacity: 1; margin-top: 0; margin-bottom: -2px }
merce-ui-product-card-medium--hoverable merce-ui-product-card-medium: not(.line-clamp-expanded)
.cmuipc-seller.cmuipc-seller--multi { max-height: unset; opacity: 1; margin-top: 0; margin-bottom: -2px }
merce-ui-product-card-medium--hoverable merce-ui-product-card-medium: not(.line-clamp-expanded)
.cmuipcm-color-options { opacity: 0; max-height: 0; margin-top: -4px } merce-ui-product-card-medium-tp
merce-ui-product-card-medium: not( merce-ui-product-card-medium--P3) .cmuipcm-content-cntr
.cmuipcm-color-options { max-height: 20px; opacity: 1; margin-top: 0; margin-bottom: -2px }
merce-ui-product-card-medium .cmuipcm-content-cntr
.cmuipc-seller.cmuipc-seller--multi { max-height: unset; opacity: 1; margin-top: 0; margin-bottom: -2px }
merce-ui-product-card-medium .cmuipcm-content-cntr
.cmuipc-seller__more { flex-shrink: 0; font: var(--bing-smtc-text-global-caption 1); color: var(--bing-smtc-foregrou
nd-content-neutral-secondary-alt); white-space: nowrap; text-overflow: ellipsis; overflow: hidden }
merce-ui-product-card-medium .cmuipcm-content-cntr__row-wrapper .cmuipcm-price-row__range
span { line-height: 17px; margin-bottom: 3px }
merce-ui-image-wrapper { display: inline-block; position: relative; overflow: hidden }
merce-ui-image-wrapper__slideshow-container: hover .b_overlay .btn.rounded.next,
merce-ui-image-wrapper__slideshow-container: hover .b_overlay .btn.rounded.prev { display: block }
merce-ui-image-wrapper__slideshow-container .b_overlay .btn.rounded.next { right: 0; display: none }
merce-ui-image-wrapper__slideshow-container .b_overlay .btn.rounded.prev { left: 0; display: none }
merce-ui-image-wrapper__slideshow-container .b_pager_overlay .b_pager { line-height: 8px; margin-top: 8px }
merce-ui-image-wrapper__slideshow-container .b_pager_overlay .b_pager .teraction>ul
li { width: 4px; height: 4px; color: #e0e0e0; background-color: #e0e0e0; border: unset; margin: 0 2px 2px }
merce-ui-image-wrapper__slideshow-container .b_pager_overlay .b_pager .teraction>ul
li.active { width: 10px; border-radius: 99px; background-color: #707070; color: #707070 }
merce-ui-image-wrapper__slideshow-container .b_pager_overlay .b_pager .teraction>ul
li: hover: not(.active) { width: 4px; height: 4px; background-color: #707070; color: #707070; margin: 0 2px
2px } .ratingv2.snrnt { display: -webkit-box; display: -webkit-flex; display: -moz-flex; display: -ms-flexbox; display: f
lex; flex-direction: row; gap: 8px; align-items: center; color: #424242; line-height: 22px; font-size: 16px; position: relat
ive; z-index: 1 } .ratingv2.snrnt.ratingHeader { gap: 12px } .ratingv2.snrnt.ratingHeader
.rs-list { padding-bottom: 0 } .ratingv2.snrnt.ratingHeader
.rating-num { font-weight: 400; font-size: 56px; line-height: 56px } .ratingv2.snrnt.ratingHeader
l { display: -webkit-box; display: -webkit-flex; display: -moz-flex; display: -ms-flexbox; display: flex; flex-direction: c
olumn; gap: 2px } .ratingv2.snrnt.ratingHeader
.review-cnt { font-size: 14px; font-weight: 400; line-height: 20px; color: #707070 } .ratingv2.snrnt
.rs-list { display: -webkit-box; display: -webkit-flex; display: -moz-flex; display: -ms-flexbox; display: flex; gap: 4px;

```

Optical Module Single-Mode vs Multi-Mode

height:22px;align-items:center;padding-bottom:2px}.ratingv2.snrnt .rs-list .rating-st,.ratingv2.snrnt .rs-list .rating-ste,.ratingv2.snrnt .rs-list .rating-sth{width:16px;height:16px;background-size:16px 16px}.ratingv2.snrnt .rating-num{font-weight:600}.ratingv2.snrnt .review-cnt,.ratingv2.snrnt .divider{font-weight:400}.ratingv2.snrnt.medium-rts{gap:12px;line-height:22px;font-size:16px}.ratingv2.snrnt.medium-rts .rs-list{height:22px}.ratingv2.snrnt.medium-rts .rs-list .rating-st,.ratingv2.snrnt.medium-rts .rs-list .rating-ste,.ratingv2.snrnt.medium-rts .rs-list .rating-sth{width:16px;height:16px;background-size:16px 16px}.ratingv2.snrnt.small-rts{gap:4px;line-height:16px;font-size:12px}.ratingv2.snrnt.small-rts .rs-list{height:16px;padding-bottom:2px}.ratingv2.snrnt.small-rts .rs-list .rating-st,.ratingv2.snrnt.small-rts .rs-list .rating-ste,.ratingv2.snrnt.small-rts .rs-list .rating-sth{width:12px;height:12px;background-size:12px 12px}.ratingv2.snrnt .rs-list .rating-st{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2240%22%20height%3D%2240%22%20viewBox%3D%220%200%2040%2040%22%20fill%3D%22none%22%20xmlns%3D%22http%3A%2F%2F%2F2000%2Fsvg%22%3E%0A%3Cpath%20d%3D%22M17.803%202.08544C18.7017%200.264492%2021.2983%200.264485%2022.197%202.08544L27.0493%2011.9174L37.8996%2013.494C39.9091%2013.786%2040.7115%2016.2556%2039.2574%2017.673L31.4061%2025.3261L33.2595%2036.1325C33.6028%2038.1339%2031.5021%2039.6602%2029.7047%2038.7152L20%2033.6132L10.2952%2038.7152C8.49785%2039.6602%206.39713%2038.1339%206.74041%2036.1325L8.59385%2025.3261L0.742549%2017.673C-0.711565%2016.2556%200.0908267%2013.786%202.10037%2013.494L12.9506%2011.9174L17.803%202.08544Z%22%20fill%3D%22%23EAA300%22%20F%3E%0A%3C%2Fsvg%3E%0A)}.ratingv2.snrnt .rs-list .rating-st.neutral-st{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2216%22%20height%3D%2216%22%20viewBox%3D%220%200%2016%2016%22%20fill%3D%22none%22%20xmlns%3D%22http%3A%2F%2F%2F2000%2Fsvg%22%3E%0D%0A%3Cpath%20d%3D%22M3.36595%2016C3.23027%2016%203.11285%2015.9481%203.0137%2015.8442C2.91455%2015.7403%202.86497%2015.6146%202.86497%2015.4669C2.86497%2015.4287%202.86758%2015.3986%202.8728%2015.3767L3.71037%2010.243L0.148728%206.60994C0.049576%206.50607%200%206.38305%200%206.2409C0%206.11515%200.0417482%206.00034%200.125245%205.89646C0.208741%205.79258%200.310502%205.72971%200.430528%205.70784L5.34638%204.96156L7.55382%200.287032C7.59556%200.199556%207.65558%200.131215%207.73386%200.0820092C7.81213%200.0328037%207.89824%200.00546728%207.99217%200C8.08611%200%208.17482%200.0246028%208.25832%200.0738083C8.34181%200.123014%208.40444%200.194089%208.44618%200.287032L10.6536%204.96156L15.5695%205.70784C15.6947%205.72971%2015.7965%205.78985%2015.8748%205.88826C15.953%205.98667%2015.9948%206.10149%2016%206.2327C16%206.38579%2015.9504%206.51153%2015.8513%206.60994L12.2896%2010.243L13.1272%2015.3767C13.1324%2015.3986%2013.135%2015.4287%2013.135%2015.4669C13.135%2015.6091%2013.0855%2015.7321%2012.9863%2015.836C12.8871%2015.9399%2012.7697%2015.9918%2012.6341%2015.9918C12.5453%2015.9918%2012.4671%2015.9727%2012.3992%2015.9344L8%2013.5069L3.60078%2015.9344C3.52772%2015.9781%203.44945%2016%203.36595%2016Z%22%20fill%3D%22%23616161%22%20F%3E%0D%0A%3C%2Fsvg%3E%0D%0A)}.ratingv2.snrnt .rs-list .rating-st.kumo-st{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2212%22%20height%3D%2213%22%20viewBox%3D%220%200%2012%2013%22%20fill%3D%22none%22%20xmlns%3D%

Optical Module Single-Mode vs Multi-Mode

229C10.9721%205.22764%2011.2341%206.03402%2010.7592%206.49684L8.96043%208.25026L9.38507
%2010.7261C9.49716%2011.3796%208.81122%2011.878%208.22431%2011.5695L6.00086%2010.4005L3.
7774%2011.5695C3.19049%2011.878%202.50455%2011.3796%202.61664%2010.7261L3.04128%208.2502
6L1.24246%206.49684C0.767651%206.03402%201.02966%205.22764%201.68584%205.13229L4.17174%
204.77107L5.28347%202.51846Z%22%20fill%3D%22%23E9EEF5%22%2F%3E%0D%0A%3C%2Fsvg%3
E)}.ratingv2.snrrt .rs-list

.rating-sth{background-image:url(data:image/svg+xml,%0A%3Csvg%20width%3D%2240%22%20height%3
D%2240%22%20viewBox%3D%220%200%2040%2040%22%20fill%3D%22none%22%20xmlns%3D%22h
ttp%3A%2F%2F%2F2000%2Fsvg%22%3E%0A%3Cmask%20id%3D%22mask0_18_119%22%20style%3D
%22mask-type%3Aalpha%22%20maskUnits%3D%22userSpaceOnUse%22%20x%3D%220%22%20y%3D
%220%22%20width%3D%2240%22%20height%3D%2240%22%3E%0A%3Cg%20clip-path%3D%22url%2
8%23clip0_18_119%29%22%3E%0A%3Cpath%20d%3D%22M17.803%202.08544C18.7017%200.264492
%2021.2983%200.264485%2022.197%202.08544L27.0493%2011.9174L37.8996%2013.494C39.9091%201
3.786%2040.7115%2016.2556%2039.2574%2017.673L31.4061%2025.3261L33.2595%2036.1325C33.6028
%2038.1339%2031.5021%2039.6602%2029.7047%2038.7152L20%2033.6132L10.2952%2038.7152C8.497
85%2039.6602%206.39713%2038.1339%206.74041%2036.1325L8.59385%2025.3261L0.742549%2017.673
C-0.711565%2016.2556%200.0908267%2013.786%202.10037%2013.494L12.9506%2011.9174L17.803%20
2.08544Z%22%20fill%3D%22%23212121%22%2F%3E%0A%3C%2Fg%3E%0A%3C%2Fmask%3E%0A%
3Cg%20mask%3D%22url%28%23mask0_18_119%29%22%3E%0A%3Crect%20width%3D%2240%22%20
height%3D%2240%22%20fill%3D%22%23E6E6E6%22%2F%3E%0A%3Crect%20width%3D%2220%22%
20height%3D%2240%22%20fill%3D%22%23EAA300%22%2F%3E%0A%3C%2Fg%3E%0A%3Cdefs%3E
%0A%3CclipPath%20id%3D%22clip0_18_119%22%3E%0A%3Crect%20width%3D%2240%22%20height
%3D%2240%22%20fill%3D%22white%22%2F%3E%0A%3C%2FclipPath%3E%0A%3C%2Fdefs%3E%0A
%3C%2Fsvg%3E%0A)}.ratingv2.snrrt .rs-list

.rating-sth.neutral-st{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2216%22%20heig
ht%3D%2216%22%20viewBox%3D%220%200%2016%2016%22%20fill%3D%22none%22%20xmlns%3D
%22http%3A%2F%2F%2F2000%2Fsvg%22%3E%0D%0A%3Cmask%20id%3D%22mask0_18_119%22%2
0style%3D%22mask-type%3Aalpha%22%20maskUnits%3D%22userSpaceOnUse%22%20x%3D%220%22
%20y%3D%220%22%20width%3D%2216%22%20height%3D%2216%22%3E%0D%0A%3Cg%20clip-path
%3D%22url%28%23clip0_18_119%29%22%3E%0D%0A%3Cpath%20d%3D%22M3.36595%2016C3.2302
7%2016%203.11285%2015.9481%203.0137%2015.8442C2.91455%2015.7403%202.86497%2015.6146%20
2.86497%2015.4669C2.86497%2015.4287%202.86758%2015.3986%202.8728%2015.3767L3.71037%2010.
243L0.148728%206.60994C0.049576%206.50607%200%206.38305%200%206.2409C0%206.11515%200.0
417482%206.00034%200.125245%205.89646C0.208741%205.79258%200.310502%205.72971%200.43052
8%205.70784L5.34638%204.96156L7.55382%200.287032C7.59556%200.199556%207.65558%200.131215
%207.73386%200.0820092C7.81213%200.0328037%207.89824%200.00546728%207.99217%200C8.08611
%200%208.17482%200.0246028%208.25832%200.0738083C8.34181%200.123014%208.40444%200.19408
9%208.44618%200.287032L10.6536%204.96156L15.5695%205.70784C15.6947%205.72971%2015.7965%
205.78985%2015.8748%205.88826C15.953%205.98667%2015.9948%206.10149%2016%206.2327C16%20
6.38579%2015.9504%206.51153%2015.8513%206.60994L12.2896%2010.243L13.1272%2015.3767C13.132

Optical Module Single-Mode vs Multi-Mode

4%2015.3986%2013.135%2015.4287%2013.135%2015.4669C13.135%2015.6091%2013.0855%2015.7321
%2012.9863%2015.836C12.8871%2015.9399%2012.7697%2015.9918%2012.6341%2015.9918C12.5453%2
015.9918%2012.4671%2015.9727%2012.3992%2015.9344L8%2013.5069L3.60078%2015.9344C3.52772%
2015.9781%203.44945%2016%203.36595%2016Z%22%20fill%3D%22%23616161%22%2F%3E%0D%0A
%3C%2Fg%3E%0D%0A%3C%2Fmask%3E%0D%0A%3Cg%20mask%3D%22url%28%23mask0_18_119
%29%22%3E%0D%0A%3Crect%20width%3D%2216%22%20height%3D%2216%22%20fill%3D%22%23
E6E6E6%22%2F%3E%0D%0A%3Crect%20width%3D%228%22%20height%3D%2216%22%20fill%3D%2
2%23616161%22%2F%3E%0D%0A%3C%2Fg%3E%0D%0A%3Cdefs%3E%0D%0A%3CclipPath%20id%
3D%22clip0_18_119%22%3E%0D%0A%3Crect%20width%3D%2216%22%20height%3D%2216%22%20fi
ll%3D%22white%22%2F%3E%0D%0A%3C%2FclipPath%3E%0D%0A%3C%2Fdefs%3E%0D%0A%3C%
2Fsvg%3E%0D%0A%0D%0A)}.ratingv2.snrnt .rs-list
.rating-sth.kumo-st{background-image:url(data:image/svg+xml,%3Csvg%20width%3D%2212%22%20height
%3D%2213%22%20viewBox%3D%220%200%2012%2013%22%20fill%3D%22none%22%20xmlns%3D%
22http%3A%2F%2F%2F2000%2Fsvg%22%3E%0D%0A%20%20%3Cdefs%3E%0D%0A%20%20%20%20
%3CclipPath%20id%3D%22rightPart%22%3E%0D%0A%20%20%20%20%20%20%3Crect%20x%3D%224
.8%22%20y%3D%220%22%20width%3D%227.2%22%20height%3D%2213%22%20%2F%3E%0D%0A%2
0%20%20%20%3C%2FclipPath%3E%0D%0A%20%20%3C%2Fdefs%3E%0D%0A%20%20%3Cpath%20d
%3D%22M5.28347%202.51846C5.57692%201.92386%206.42479%201.92386%206.71825%202.51846L7.8
2997%204.77107L10.3159%205.13229C10.9721%205.22764%2011.2341%206.03402%2010.7592%206.496
84L8.96043%208.25026L9.38507%2010.7261C9.49716%2011.3796%208.81122%2011.878%208.22431%2
011.5695L6.00086%2010.4005L3.7774%2011.5695C3.19049%2011.878%202.50455%2011.3796%202.6166
4%2010.7261L3.04128%208.25026L1.24246%206.49684C0.76765%206.03402%201.02966%205.22764%
201.68584%205.13229L4.17174%204.77107L5.28347%202.51846Z%22%20fill%3D%22%23242424%22%
2F%3E%0D%0A%20%20%3Cpath%20d%3D%22M5.28347%202.51846C5.57692%201.92386%206.42479
%201.92386%206.71825%202.51846L7.82997%204.77107L10.3159%205.13229C10.9721%205.22764%20
11.2341%206.03402%2010.7592%206.49684L8.96043%208.25026L9.38507%2010.7261C9.49716%2011.37
96%208.81122%2011.878%208.22431%2011.5695L6.00086%2010.4005L3.7774%2011.5695C3.19049%20
11.878%202.50455%2011.3796%202.61664%2010.7261L3.04128%208.25026L1.24246%206.49684C0.7676
51%206.03402%201.02966%205.22764%201.68584%205.13229L4.17174%204.77107L5.28347%202.51846
Z%22%20fill%3D%22%23E9EEF5%22%20clip-path%3D%22url%28%23rightPart%29%22%2F%3E%0D%
0A%3C%2Fsvg%3E)}.price-container{display:-webkit-box;display:-webkit-flex;display:-moz-flex;display:-
ms-flexbox;display:flex;-webkit-box-direction:normal;-webkit-box-orient:horizontal;flex-direction:row;color:
#242424;font-size:20px;line-height:22.4px;font-weight:600}.price-container[size="xx-small"]{font-size:12px;
line-height:18px;font-weight:200}.price-container[size="x-small"]{font-size:14px;line-height:14px;font-weig
ht:200}.price-container[size="small"]{font-size:16px;line-height:18px;font-weight:600}.price-container[size=
"medium"]{font-size:20px;line-height:22.4px;font-weight:600}.price-container[size="large"]{font-size:24px;l
ine-height:27.2px;font-weight:600}.price-container[size="x-large"]{font-size:28px;line-height:27.3px;font-we
ight:600}.price-container[color="neutral"],.price-container[discount-label-color="neutral"]
.price-container__discount-label{color:#242424}.price-container[color="accent-primary"],.price-container[dis
count-label-color="accent-primary"]

Optical Module Single-Mode vs Multi-Mode

```
.price-container__discount-label{color:#128052}.price-container[.price-container[
discount-label-color="accent-secondary"]
.price-container__discount-label{color:#d63600}.price-container[.price-container[discount-lab
el-color="subtle"]
.price-container__discount-label{color:#707070}.price-container[.price-container[discount-l
abel-color="inverted"]
.price-container__discount-label{color:#fff}.price-container[.price-container[discount-l
abel-color="accent-brand"]
.price-container__discount-label{color:#2169eb}.price-container
.price-container__currency,.price-container
.price-container__integer,.price-container
.price-container__cents,.price-container
.price-container__decimal{text-decoration:line-through}.price-container[show-raised-cents]
.price-container__currency,.price-container[show-raised-cents]
.price-container__cents{vertical-align:top}.price-container[show-raised-cents]
.price-container__currency{margin-right:.1em;font-size:60%;line-height:1;transform:translate(0,10%)}.price-
container[show-raised-cents]
.price-container__cents{margin-left:.05em;font-size:60%;line-height:1;transform:translate(0,8%)}.price-conta
iner
.price-container__per-item-container{display:-webkit-box;display:-webkit-flex;display:-moz-flex;display:-ms-
flexbox;display:flex;-webkit-box-direction:normal;-webkit-box-orient:horizontal;flex-direction:row;-webkit-b
ox-align:end;-ms-flex-align:end;align-items:flex-end;color:#707070;padding-left:2px;column-gap:2px;font-w
eight:200}.price-container__discount-label{margin-left:.2em}.price-container[discount-label-position="top"]
:
not([size="small"]):not([size="x-small"]):not([size="xx-small"])
.price-container__discount-label{vertical-align:top;font-size:60%;line-height:1;transform:translate(0,.1em)}.pr
ice-container[discount-label-position="bottom"]
.price-container__discount-label{margin-left:.2em;font-size:100% }
merce-ui-price{display:block}#slideexp1_3355D3 .slide { width: 200px; margin-right: 24px;
}#slideexp1_3355D3c .b_slidebar .slide { border-radius: 6px; }#slideexp1_3355D3 .slide:last-child {
margin-right: 0px; }#slideexp1_3355D3c .b_slidebar .slide[data-mini="1"] { display:none; }wolontek
Single-Mode Vs Multimode Optical Modules: Detailed Differences ...Is your data center or campus network
best served by Single Mode or Multimode Optical Modules? Choosing between Single Mode and Multimode
Optical Modules will shape cost, reach and upgrade ...
```

Understanding the differences between single-mode, multimode, and specialty optical fibers, along with their manufacturing constraints and emerging applications, is essential for ...

Multi-mode optical modules can only be used for short-distance transmission (SR) due to serious inter-mode dispersion; while single-mode optical modules are mostly used for long-distance ...

Optical Module Single-Mode vs Multi-Mode

Web: <https://busydoniemiecwaldii.pl>