

# Neuberger Berman Next Generation Connectivity

## Overview

Next Generation Connectivity (5G) is a concentrated, growth-oriented thematic strategy that seeks to target key global enablers and beneficiaries of next generation, 5G and future connectivity.

## Thematic Summary

Fifth generation (5G) cellular technologies enable ultra-high bandwidth mobile communication, breakthrough consumer and business applications and services. The nascent stage of 5G and breadth of disruptive enablers and beneficiaries contribute to this core, sustainable investment theme.

## Key Differentiators

- NB was first to market a 5G thematic strategy
- Global, cross-sector investment process and portfolio pursues alpha across US, non-US, Emerging Markets and SMID investment universe
- Concentrated portfolio targets what the team identifies as sustainable leaders focused on visible, predictable long-term secular trends and structural change

## Sub-Themes

- Strategy encompasses distinctive sub-themes tied to Network Infrastructure, Applications & Services, and Internet-of-Things ("IoT") Devices
- Focused on companies with over 50% of future earnings growth driven by 5G services
- Fundamental research-intensive, bottom-up approach backed by a team of technology veterans leveraging industry "insider" perspectives

## Portfolio Construction Targets

- Holdings: Typically 40-60
- LTM Turnover: Typically 40-60%
- Non-US exposure: Typically 25-50%

## Investment Performance (%)

	QTD	YTD	Annualized Returns (Period Ended 12/31/2022)			
			1 Year	3 Year	5 Year	Since Inception (1/1/2018)
Next Generation Connectivity (gross of fees)	-0.67	-42.64	-42.64	-1.96	4.07	4.07
Next Generation Connectivity (net of fees)	-1.40	-44.31	-44.31	-4.82	1.04	1.04
MSCI ACWI (Net)	9.76	-18.36	-18.36	4.00	5.23	5.23

**Past performance is no guarantee of future results.** See GIPS® composite report disclosures for details on fees and net calculations. Fee schedule: maximum fee 300 bps annually; 75 bps quarterly.

## Portfolio Characteristics

	Next Generation Connectivity	MSCI ACWI (Net)
Weighted Median Cap (\$)	35,997	78,776
Return on Equity	24.70	24.46
Price/Cash Flow	15.85	10.89
Price/Book	4.04	2.56
P/E Ratio FY1 (incl. neg)	25.94	15.35
PEG Ratio Forward (x)	1.01	1.39
Active Share vs. MSCI ACWI (Net)	93.88	-

## Sector Weightings (%)

	Next Generation Connectivity	MSCI ACWI (Net)
Communication Services	8.63	6.78
Consumer Discretionary	3.35	10.43
Consumer Staples	0.00	7.75
Energy	0.00	5.58
Financials	0.85	15.19
Health Care	3.86	13.37
Industrials	3.37	10.16
Information Technology	75.09	20.00
Materials	0.00	4.98
Real Estate	0.00	2.59
Utilities	0.00	3.18
Cash	4.85	0.00

## Top Ten Holdings (%)

Keysight Technologies Inc	4.81
ASM International N.V. Sponsored ADR	4.39
Marvell Technology, Inc.	3.81
Advanced Micro Devices, Inc.	3.77
ServiceNow, Inc.	3.76
Taiwan Semiconductor Manufacturing Sponsored ADR	3.68
T-Mobile US, Inc.	3.66
HubSpot, Inc.	3.64
Nokia Oyj Sponsored ADR	3.62
Monolithic Power Systems, Inc.	3.43
<b>Total</b>	<b>38.58</b>

## Region Breakdown

	Next Generation Connectivity	MSCI ACWI (Net)
Africa/Mideast	0.00	0.18
Asia/Pacific Ex Japan	0.00	3.21
Canada	0.00	3.06
Emerging	3.68	11.24
Europe Ex-Uk	8.01	12.59
Japan	10.67	5.56
United Kingdom	0.00	3.91
United States	72.79	60.25
Cash	4.85	0.00

Sources: FactSet, Neuberger Berman.

**This Portfolio is available only through a wrap fee or similar program sponsored by a third-party intermediary ("Financial Intermediary") that has engaged Neuberger Berman Investment Advisers LLC ("NBIA") to manage certain of the Financial Intermediary's client accounts on a discretionary basis or to provide the Financial Intermediary with recommendations in the form of model portfolio. Please refer to the attached GIPS® compliant composite presentation, which reflects NBIA's calculations with respect to the Portfolio that are not specific to any Financial Intermediary or client account ("Composite").** Specific client account performance is reflected in the official books and records maintained by the Financial Intermediary or other custodian selected by the Financial Intermediary or client.

Returns for periods of less than one year are not annualized. See GIPS® composite report disclosures for details on fees and net calculations. Portfolio characteristics, including attribution, relative returns and risk statistics are shown gross of fees. Investing entails risks, including possible loss of principal. **Past performance is no guarantee of future results.** See Additional Disclosures which are an important part of this material and include any endnotes.

## Investment Performance Disclosure Statement

	Composite		Benchmark	Composite					3 Year Standard Deviation	
	Total Return (% Gross of Fees)	Total Return (% Net of Fees)	MSCI ACWI (Net) (%) (All Country World Index)	No. of Accounts	Market Value (\$, m)	Total Firm Assets (\$, bn)	% of Firm Assets	Internal Dispersion	Composite (%)	MSCI ACWI (Net) (%) (All Country World Index)
2022	-42.64	-44.31	-18.36	≤ 5	0.1	--	--	--	24.31	19.86
2021	7.57	4.44	18.54	≤ 5	0.2	460.5	0.00	--	18.46	16.84
2020	52.70	48.25	16.25	≤ 5	0.2	405.4	0.00	--	19.50	18.13
2019	40.84	36.74	26.60	≤ 5	0.1	355.8	0.00	--	--	--
2018	-7.99	-10.67	-9.41	≤ 5	1,799.9	304.1	0.59	--	--	--

### Compliance Statement

Neuberger Berman Group LLC ("NB", "Neuberger Berman" or the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Neuberger Berman has been independently verified for the period January 1, 2011 to December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not ensure the accuracy of any specific composite presentation. The verification reports are available upon request.

The GIPS® firm definition was redefined effective January 1, 2011. For prior periods there were two separate firms for GIPS® firm definition purposes and such firms were independently verified for the periods January 1, 1997 to December 31, 2010 and January 1, 1996 to December 31, 2010, respectively. The Firm definition was most recently changed in 2020 to include the addition of Neuberger Berman Loan Advisers LLC and Neuberger Berman Loan Advisers II LLC.

### Definition of the Firm

The firm is currently defined for GIPS® purposes as Neuberger Berman Group LLC, ("NB", "Neuberger Berman" or the "Firm"), and includes the following subsidiaries and affiliates: Neuberger Berman Investment Advisers LLC, Neuberger Berman Europe Ltd., Neuberger Berman Asia Ltd., Neuberger Berman East Asia Ltd., Neuberger Berman Singapore Pte. Ltd., Neuberger Berman Taiwan Ltd, Neuberger Berman Australia Pty. Ltd., Neuberger Berman Trust Company N.A., Neuberger Berman Trust Company of Delaware N.A., NB Alternatives Advisers LLC Neuberger Berman Breton Hill ULC, Neuberger Berman Loan Advisers LLC and Neuberger Berman Loan Advisers II LLC.

### Policies

Policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

### Composite Description

The Managed Account Group ("MAG") Next Generation Connectivity Composite (the "Composite") includes Neuberger Berman's calculations with respect to all wrap fee or similar client accounts of third-party intermediaries (each, a "Financial Intermediary") that are managed on a discretionary basis by Neuberger Berman Investment Advisers LLC ("NBIA") in the MAG Next Generation Connectivity investment style ("MAG Portfolio"). The Composite is not specific to any Financial Intermediary or client account. Specific client account performance is reflected in the official books and records maintained by the Financial Intermediary or other custodian selected by the Financial Intermediary or the client. The MAG Portfolio is available only through Financial Intermediaries that have engaged NBIA to manage client accounts on a discretionary basis or to provide non-discretionary investment recommendations in the form of a model portfolio. The MAG Portfolio is a global equity strategy designed to benefit from the build out and investment in future connectivity networks globally as well as beneficiaries of the new technologies that will be enabled by those networks. The Composite creation date is April 2020 and the performance inception date is January 2018. Starting November 1, 2019, the strategy invests in American Depository receipts (ADR's) for non-US securities. Previously, the strategy invested in locally-traded securities. From January 2018 to October 2019, the performance track record includes the performance of the Next Generation Connectivity Institutional Composite. Since November 2019, the performance returns are those of the MAG Next Generation Connectivity Composite. A complete list of Neuberger Berman's composites is available upon request.

### Primary Benchmark Description

The benchmark is the MSCI ACWI (Net) (All Country World Index) (the "Index"). The Index is a free float-adjusted market capitalization-weighted index that is designed to measure the equity market performance of developed and emerging markets. The index consists of 47 country indexes comprising 23 developed and 24 emerging market country indexes. The developed market country indexes included are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, the Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the United Kingdom and the United States. The emerging market country indexes included are: Brazil, Chile, China, Colombia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, the Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, and the UAE. Net total return indexes reinvest dividends after the deduction of withholding taxes, using (for international indexes) a tax rate applicable to non-resident institutional investors who do not benefit from double taxation treaties. Effective June 2016, the primary benchmark was changed from the MSCI ACWI Index (Gross) to the MSCI ACWI Index (Net) to better reflect the holdings held in the composite.

### Reporting Currency

Valuations are computed and performance is reported in U.S. Dollars. Performance includes reinvestment of dividends and other earnings.

### Fees

Pure "gross" returns, are presented as supplemental information, and do not reflect the deduction of any trading costs. Fees, or expenses, are presented for comparison purposes only. The Separately Managed Account ("SMA") fee charged by each Financial Intermediary typically includes all charges for trading costs, portfolio management, custody and other administrative fees. Net returns are calculated by subtracting the hypothetical highest SMA fee charged by each Financial Intermediary (300 bps on an annual basis, or 75 bps quarterly) from the "pure" gross composite return.

Presented risk measures are calculated using gross-of-fee composite returns.

To the extent that a composite contains fund(s) whereby performance is calculated based on changes in monthly NAV's, net returns reflect miscellaneous fund expenses (admin, legal, etc.) in addition to investment management fees for the portion of composite containing these vehicles.

### Fee Schedule

The standard fee schedule in effect is as follows: 3.00% on total assets.

### Internal Dispersion

Internal dispersion is calculated using the asset-weighted standard deviation of annual gross returns of those portfolios that were in the Composite for the entire year. Internal dispersion is not calculated if the Composite does not contain at least 6 portfolios for the entire year.

### Annualized Standard Deviation

The three-year annualized standard deviation measures the variability of the Composite and the benchmark returns over the preceding 36-month period. The standard deviation is not required for periods prior to 2011.

### Availability and Trademark Disclosures

The firm's list of composite descriptions, limited distribution pooled fund descriptions, and broad distribution pooled fund descriptions are available upon request.

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### Additional Disclosures

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Representative portfolio information (characteristics, holdings, weightings, etc.) is based upon the composite account. Any segment level performance shown (equity only or fixed income only) is presented gross of fees and focuses exclusively on the investments in that particular segment of the portfolio being measured (equity or fixed income holdings) and excludes cash. Client accounts may vary significantly from composite performance and representative portfolio information. Specific securities identified and described do not represent all of the securities purchased, sold or recommended for advisory clients. It should not be assumed that any investments in securities, companies, sectors or markets identified and described were or will be profitable.

**Market Risk:** The risk of a change in the value of a position as a result of underlying market factors, including among other things, the overall performance of companies and the market perception of the global economy.

**Liquidity Risk:** The risk that the strategy may be unable to sell an investment readily at its fair market value. In extreme market conditions this can affect the strategy's ability to meet redemption requests upon demand.

**Concentration Risk:** The strategy's investments may be concentrated in a small number of investments and its performance may therefore be more variable than the performance of a more diversified strategy.

**Emerging Markets Risk:** Emerging markets are likely to bear higher risk due to a possible lack of adequate financial, legal, social, political and economic structures, protection and stability as well as uncertain tax positions which may lead to lower liquidity.

**Stock Connect Risk:** The Shanghai/Shenzhen-Hong Kong Stock Connect are relatively new trading programmes, where many of the relevant regulations are untested and subject to change at any moment as well as not as active as exchanges in more developed markets which may affect the ability to sell your shares. Additional risks needs to be considered and you should refer to the 'investment risk' section of the prospectus for details.

**Smaller Companies Risk:** In respect of Portfolios which may invest in small capitalisation companies, such investments involve greater risk than is customarily associated with larger, more established companies due to the greater business risks of small size, limited markets and financial resources, narrow product lines and a frequent lack of depth of management.

**Counterparty Risk:** The risk that a counterparty will not fulfil its payment obligation for a trade, contract or other transaction, on the due date.

**Operational Risk:** The risk of direct or indirect loss resulting from inadequate or failed processes, people and systems including those relating to the safekeeping of assets or from external events.

**Currency Risk:** Investors who subscribe in a currency other than the base currency of the Fund are exposed to currency risk. Fluctuations in exchange rates may affect the return on investment. If the currency of this share class is different from your local currency, then you should be aware that due to exchange rate fluctuations the performance shown may increase or decrease if converted into your local currency.

FOR MORE INFORMATION REGARDING NEUBERGER BERMAN PORTFOLIOS PLEASE CALL 877.628.2583 OR E-MAIL: MAG@NB.COM.

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