HYTEM
Microwave Systems

# RF AND MICROWAVE COAXIAL CABLES



# CONTENT

Hytem presentation..... 03
RG & KX type..... 04
Cost-effective high frequency..... 04
Low loss & high isolation..... 05
Ultra low loss microwave..... 05
LMR® type low loss RF..... 06
Temperature stable & ultra low loss microwave..... 07
Hand formable..... 08
Semi-rigid..... 09
Corrugated..... 10
Temperature stable..... 10
Precision adapters..... 11
Tools, options and accessories..... 13

# HYTEM PRESENTATION




Created in 1994, the HYTEM company has continued to evolve in the field of radio frequencies and microwaves. It has become an industrial player with the creation of RF and microwave cords and connectors, RF components, RF design and integration departments. This diversification has strengthened control of its global offering and makes it possible to provide ever more innovative solutions to its customers.

The HYTEM company is consolidating its investment policy in order to maintain its competitiveness and move towards automation of the manufacturing processes of measurement and control devices. Technological developments and the diversity of fields of application have led the HYTEM company to constitute a complete and global product offering. High quality, total reliability and great flexibility combined with an ever-expanding range of products ensure that HYTEM has a dominant position in its markets.

The availability in stock of the most common models is the response to the requirement for responsiveness and flexibility of requests.

**ISO 9001 CERTIFICATION**
The HYTEM company has been committed to a quality policy with ISO 9001 certification since 2001. Click here for the latest version of the certificate.

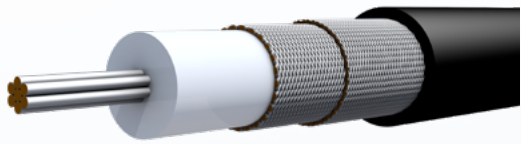
**CSR BOOKLET**
We are also committed to Corporate Social Responsibility (CSR). Follow this link to view our CSR booklet summarizing our initiatives and actions in favor of a more sustainable future.

**ECOVADIS ASSESSMENT**
HYTEM is committed to Corporate Social Responsibility and continuous improvement. Our EcoVadis assessment recognizes the actions implemented in the areas of environmental sustainability, ethics, human rights, and responsible procurement. Click here to view our latest EcoVadis scorecard.

**FRENCH FAB**
HYTEM is proud to be a member of La French Fab, the community that promotes French industrial excellence. This initiative highlights companies that innovate, manufacture, and contribute to the competitiveness of French industry. Click here to learn more about our commitment as a member of La French Fab.

# RG & KX TYPE

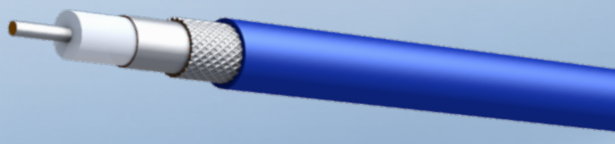
RG and KX flexible coaxial cables are designed for common applications requiring stable performance at an optimized cost. Their flexible construction allows easy integration into various RF systems, enabling signal transmission in test environments, telecom installations, or standard electronic equipment. Available in multiple configurations, they ensure compatibility with a wide range of connectors.



| Part Number | Temperature range | Weight | Frequency range | Impedance | Velocity of propagation | Jacket |
|---|---|---|---|---|---|---|
| HY58 | -40 °C ~ +85 °C | 35 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | PVC Ø 4,95 mm |
| HY58FR | -40 °C ~ +80 °C | 34 kg/km | DC ~ 6 GHz | 50 Ohms | 66 % | FRNC Ø 4,90 mm |
| HY142 | -55 °C ~ +150 °C | 64 kg/km | DC ~ 12,4 GHz | 50 Ohms | 70 % | FEP Ø 4,95 mm |
| HY174 | -40 °C ~ +85 °C | 13 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | PVC Ø 2,79 mm |
| HY178 | -55 °C ~ +200 °C | 8 kg/km | DC ~ 3 GHz | 50 Ohms | 70 % | FEP Ø 1,83 mm |
| HY178DT | -55 °C ~ +150 °C | 13 kg/km | DC ~ 3 GHz | 50 Ohms | 70 % | FEP Ø 2,10 mm |
| HY178FR | -55 °C ~ +200 °C | 7,8 kg/km | DC ~ 2,5 GHz | 50 Ohms | 70 % | FEP Ø 1,75 mm |
| HY213 | -40 °C ~ +85 °C | 148 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | PVC Ø 10,30 mm |
| HY214 | -40 °C ~ +85 °C | 174 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | PVC Ø 10,80 mm |
| HY214FR | -40 °C ~ +80 °C | 210 kg/km | DC ~ 5,8 GHz | 50 Ohms | 66 % | LSZH Ø 10,80 mm |
| HY223 | -40 °C ~ +85 °C | 55 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | PVC Ø 5,38 mm |
| HY223FR | -40 °C ~ +85 °C | 55 kg/km | DC ~ 3 GHz | 50 Ohms | 66 % | LSZH Ø 5,38 mm |
| HY223UF | -25 °C ~ +85 °C | 53 kg/km | DC ~ 6 GHz | 50 Ohms | 66 % | PVC Ø 5,30 mm |
| HY316 | -55 °C ~ +150 °C | 17 kg/km | DC ~ 3 GHz | 50 Ohms | 70 % | FEP Ø 2,49 mm |
| HY316DEN | -40 °C ~ +105 °C | 21 kg/km | DC ~ 6 GHz | 50 Ohms | 70 % | LSFH Ø 3,16 mm |
| HY316DT | -55 °C ~ +150 °C | 27 kg/km | DC ~ 3 GHz | 50 Ohms | 70 % | FEP Ø 2,80 mm |
| HY393 | -55 °C ~ +150 °C | 235 kg/km | DC ~ 11 GHz | 50 Ohms | 70 % | FEP Ø 9,91 mm |
| HY400 | -55 °C ~ +150 °C | 66 kg/km | DC ~ 12,4 GHz | 50 Ohms | 70 % | FEP Ø 4,95 mm |

# COST-EFFECTIVE HIGH FREQUENCY

Designed for common applications requiring stable high frequency transmission, these cables combine cost efficiency with essential technical performance. Their construction allows easy integration into standard RF systems while ensuring controlled attenuation.



| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Velocity of propagation | Jacket |
|---|---|---|---|---|---|---|---|
| HY047MF | -55 °C ~ +125 °C | 8 mm (stat) / 16 mm (dyn) | 6 kg/km | DC ~ 110 GHz | 50 Ohms | 70 % | FEP Ø 1,60 mm |
| HY405MF | -55 °C ~ +125 °C | 13 mm (stat) / 26 mm (dyn) | 20 kg/km | DC ~ 61 GHz | 50 Ohms | 70 % | FEP Ø 2,60 mm |
| HY402MF | -55 °C ~ +125 °C | 20 mm (stat) / 40 mm (dyn) | 41 kg/km | DC ~ 34 GHz | 50 Ohms | 70 % | FEP Ø 4,06 mm |
| HY401MF | -55 °C ~ +125 °C | 35 mm (stat) / 70 mm (dyn) | 140 kg/km | DC ~ 18 GHz | 50 Ohms | 70 % | FEP Ø 7,00 mm |

# LOW LOSS & HIGH ISOLATION

Designed for demanding microwave environments, these cables ensure excellent signal integrity through optimized insulation and minimal loss. They are ideal for applications requiring high precision and strong electromagnetic stability.



| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Jacket |
|---|---|---|---|---|---|---|
| HY106 | -55 °C ~ +200 °C | 25,4 mm (stat) / 50,8 mm (dyn) | 54 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 4,57 mm |
| HY205 | -55 °C ~ +200 °C | 38 mm (stat) / 76 mm (dyn) | 63 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 5,21 mm |
| HY304 | -55 °C ~ +200 °C | 51 mm (stat) / 102 mm (dyn) | 100 kg/km | DC ~ 18 GHz | 50 Ohms | FEP Ø 6,35 mm |
| HY403 | -55 °C ~ +200 °C | 51 mm (stat) / 102 mm (dyn) | 188 kg/km | DC ~ 12 GHz | 50 Ohms | FEP Ø 9,91 mm |

# ULTRA LOW LOSS MICROWAVE

These flexible cables are specifically designed for high frequency transmissions requiring minimal attenuation. Their stable performance makes them a reliable solution for sensitive RF systems and wide-bandwidth environments.



| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Jacket |
|---|---|---|---|---|---|---|
| HY160 | -55 °C ~ +165 °C | 8 mm (stat) / 15 mm (dyn) | 6 kg/km | DC ~ 110 GHz | 50 Ohms | FEP Ø 1,50 mm |
| HY220 | -55 °C ~ +165 °C | 11 mm (stat) / 22 mm (dyn) | 16 kg/km | DC ~ 67 GHz | 50 Ohms | FEP Ø 2,20 mm |
| HY310 | -55 °C ~ +165 °C | 15 mm (stat) / 31 mm (dyn) | 27 kg/km | DC ~ 50 GHz | 50 Ohms | FEP Ø 3,10 mm |
| HY360 | -55 °C ~ +165 °C | 18 mm (stat) / 36 mm (dyn) | 33 kg/km | DC ~ 40 GHz | 50 Ohms | FEP Ø 3,60 mm |
| HY410 | -55 °C ~ +165 °C | 20 mm (stat) / 40 mm (dyn) | 36 kg/km | DC ~ 40 GHz | 50 Ohms | FEP Ø 4,00 mm |
| HY460 | -55 °C ~ +165 °C | 23 mm (stat) / 46 mm (dyn) | 48 kg/km | DC ~ 32 GHz | 50 Ohms | FEP Ø 4,60 mm |
| HY480 | -55 °C ~ +165 °C | 24 mm (stat) / 48 mm (dyn) | 55 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 4,80 mm |
| HY520P | -55 °C ~ +150 °C | 26 mm (stat) / 52 mm (dyn) | 63 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 5,40 mm |
| HY540 | -55 °C ~ +165 °C | 27 mm (stat) / 54 mm (dyn) | 75 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 5,40 mm |
| HY780 | -55 °C ~ +165 °C | 39 mm (stat) / 78,0 mm (dyn) | 130 kg/km | DC ~ 18 GHz | 50 Ohms | FEP Ø 7,80 mm |
| HY1000 | -55 °C ~ +165 °C | 50 mm (stat) / 100 mm (dyn) | 206 kg/km | DC ~ 14 GHz | 50 Ohms | FEP Ø 10,00 mm |

# LMR® TYPE LOW LOSS RF

LMR®-type low-loss coaxial cables stand out for their reduced attenuation compared to standard RG or KX cables. Thanks to their double shielding (braid and foil), they provide superior electromagnetic isolation and are ideal for applications where signal preservation is essential. Commonly used in fixed or mobile RF systems, they are suitable for frequencies ranging from a few MHz to several GHz.



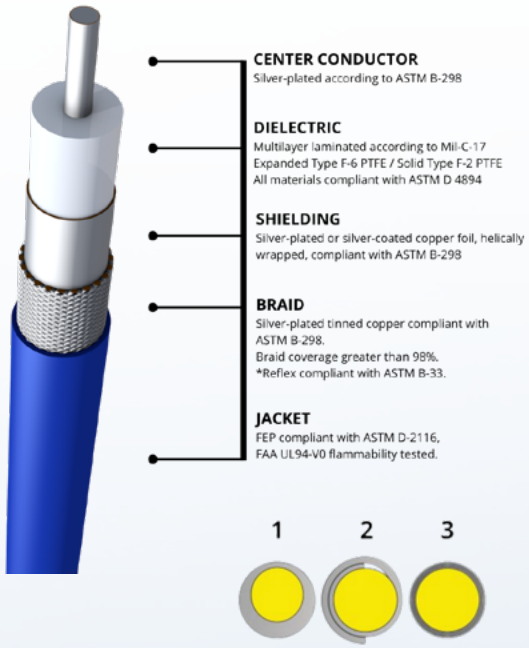
| Part Number | Temperature range | Weight | Frequency range | Impedance | Velocity of propagation | Jacket |
|---|---|---|---|---|---|---|
| HYLM100 | -40 °C ~ +80 °C | 14 kg/km | DC ~ 6 GHz | 50 Ohms | 66 % | PE Ø 2,79 mm |
| HYLM100FR | -40 °C ~ +80 °C | 14 kg/km | DC ~ 6 GHz | 50 Ohms | 66 % | LSZH PE Ø 2,79 mm |
| HYLM195 | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 80 % | PE Ø 4,95 mm |
| HYLM195FR | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 80 % | LSZH PE Ø 4,95 mm |
| HYLM195UF | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 76 % | TPE Ø 4,95 mm |
| HYLM195UFFR | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 76 % | FRPE Ø 4,95 mm |
| HYLM200 | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 83 % | PE Ø 4,95 mm |
| HYLM200FR | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 83 % | LSZH PE Ø 4,95 mm |
| HYLM200UF | -40 °C ~ +80 °C | 30 kg/km | DC ~ 6 GHz | 50 Ohms | 83 % | TPE Ø 4,95 mm |
| HYLM240 | -40 °C ~ +80 °C | 50 kg/km | DC ~ 6 GHz | 50 Ohms | 84 % | PE Ø 6,10 mm |
| HYLM240FR | -40 °C ~ +80 °C | 50 kg/km | DC ~ 6 GHz | 50 Ohms | 84 % | LSZH PE Ø 6,10 mm |
| HYLM240UF | -40 °C ~ +80 °C | 50 kg/km | DC ~ 6 GHz | 50 Ohms | 80 % | TPE Ø 6,10 mm |
| HYLM240UFFR | -40 °C ~ +80 °C | 50 kg/km | DC ~ 6 GHz | 50 Ohms | 80 % | FRPE Ø 6,10 mm |
| HYLM400 | -40 °C ~ +80 °C | 100 kg/km | DC ~ 6 GHz | 50 Ohms | 85 % | PE Ø 10,29 mm |
| HYLM400FR | -40 °C ~ +80 °C | 100 kg/km | DC ~ 6 GHz | 50 Ohms | 85 % | LSZH PE Ø 10,29 mm |
| HYLM400UF | -40 °C ~ +80 °C | 131 kg/km | DC ~ 6 GHz | 50 Ohms | 85 % | TPE Ø 10,29 mm |
| HYLM400UFFR | -40 °C ~ +80 °C | 131 kg/km | DC ~ 6 GHz | 50 Ohms | 85 % | FRPE Ø 10,29 mm |
| HYLM600 | -40 °C ~ +80 °C | 200 kg/km | DC ~ 6 GHz | 50 Ohms | 87 % | PE Ø 14,99 mm |
| HYLM600FR | -40 °C ~ +80 °C | 200 kg/km | DC ~ 6 GHz | 50 Ohms | 87 % | LSZH PE Ø 14,99 mm |
| HYLM600UF | -40 °C ~ +80 °C | 250 kg/km | DC ~ 6 GHz | 50 Ohms | 87 % | TPE Ø 14,99 mm |
| HYLM600UFFR | -40 °C ~ +80 °C | 250 kg/km | DC ~ 6 GHz | 50 Ohms | 87 % | FRPE Ø 14,99 mm |
| HYLM900 | -40 °C ~ +80 °C | 400 kg/km | DC ~ 6 GHz | 50 Ohms | 87 % | PE Ø 22,10 mm |

# TEMPERATURE STABLE & ULTRA LOW LOSS MICROWAVE

CUSTOM CABLE DESIGN FOR YOUR DEMANDING APPLICATIONS

We support you at every stage to choose cables that precisely meet your requirements, even in extreme environments. From the initial analysis, we work closely with your teams to define specifications, develop optimized solutions, and ensure manufacturing using the most advanced technologies.

In the face of growing challenges in microwave applications, we continuously innovate. With state-of-the-art equipment and optimized processes, we develop high-performance cables and assemblies tailored to the demands of today and tomorrow.



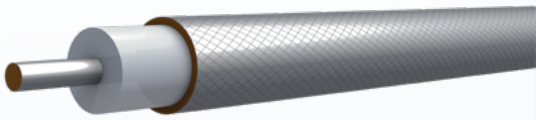

These diagrams illustrate our advanced insulation technology, designed to ensure optimal stability and minimal microwave losses, while eliminating the limitations of other constructions.

**Extruded insulation:** requires increased thickness to compensate for potential conductor eccentricities.
**Tape-wrapped insulation:** creates an uneven surface, incompatible with high-pressure O-rings, encouraging contamination and partial discharge formation within winding voids.
**Our innovative insulation:** delivers superior reliability while optimizing space and weight, achieving unmatched performance in demanding environments.

| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Jacket |
|---|---|---|---|---|---|---|
| HY125 | -65 °C ~ +200 °C | 6,35 mm (stat) / 15,9 mm (dyn) | 17,9 kg/km | DC ~ 70 GHz | 50 Ohms | FEP Ø 2,51 mm |
| HY140 | -65 °C ~ +200 °C | 12.7 mm (stat) / 25,4 mm (dyn) | 28 kg/km | DC ~ 50 GHz | 50 Ohms | FEP Ø 3,30 mm |
| HY150 | -65 °C ~ +200 °C | 12.7 mm (stat) / 32 mm (dyn) | 33 kg/km | DC ~ 43 GHz | 50 Ohms | FEP Ø 3,65 mm |
| HY150UF | -65 °C ~ +200 °C | 12,7 mm (stat) / 32 mm (dyn) | 33 kg/km | DC ~ 42 GHz | 50 Ohms | FEP Ø 3,65 mm |
| HY157 | -65 °C ~ +200 °C | 12.7 mm (stat) / 32 mm (dyn) | 38 kg/km | DC ~ 40 GHz | 50 Ohms | FEP Ø 4,06 mm |
| HY180 | -65 °C ~ +200 °C | 19 mm (stat) / 32 mm (dyn) | 58 kg/km | DC ~ 32 GHz | 50 Ohms | FEP Ø 4,80 mm |
| HY230 | -65 °C ~ +200 °C | 19 mm (stat) / 35 mm (dyn) | 72 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 5,79 mm |
| HY230UF | -65 °C ~ +200 °C | 16 mm (stat) / 32 mm (dyn) | 68 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 5,79 mm |
| HY280 | -65 °C ~ +165 °C | 25,4 mm (stat) / 50 mm (dyn) | 130 kg/km | DC ~ 18 GHz | 50 Ohms | FEP Ø 7,74 mm |
| HY280UF | -65 °C ~ +165 °C | 25,4 mm (stat) / 50 mm (dyn) | 120 kg/km | DC ~ 18 GHz | 50 Ohms | FEP Ø 7,74 mm |

# HAND FORMABLE

With an operating frequency ranging from 18 to 26.5 GHz, and optional capabilities reaching up to 40 or 65 GHz, our hand formable cables deliver exceptional performance for the most demanding RF and microwave applications.



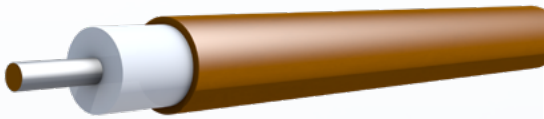
These hand formable cables stand out for their ability to be shaped without tools, offering greater flexibility compared to semi-rigid cables. Although they can only be reshaped a limited number of times, they remain an excellent alternative for microwave interconnections, particularly for component-to-component links within enclosures or racks.

Available primarily in four diameters (0.047, 0.085, 0.141, and 0.250 inches), they are compatible with standard SMA connectors (3.50 mm, 2.92 mm, 2.40 mm, 1.85 mm), providing essential adaptability for a wide range of configurations.

| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Outer conductor | Jacket |
|---|---|---|---|---|---|---|---|
| HY047FORM | -65 °C ~ +150 °C | 2.5 mm | 6.6 kg/km | DC ~ 40 GHz (up to 67 GHz optional) | 50 Ohms | TPC braid Ø 1,14 mm | Unjacketed |
| HY047FORMFEP | -65 °C ~ +150 °C | 2.5 mm | 7.9 kg/km | DC ~ 40 GHz (up to 67 GHz optional) | 50 Ohms | TPC braid Ø 1,14 mm | FEP Ø 1,44 mm |
| HY401FORM | -65 °C ~ +150 °C | 30 mm | 129 kg/km | DC ~ 18 GHz | 50 Ohms | TPC braid Ø 6,35 mm | Unjacketed |
| HY401FORMFEP | -65 °C ~ +150 °C | 12.7 mm | 140 kg/km | DC ~ 18 GHz | 50 Ohms | TPC braid Ø 6,35 mm | FEP Ø 6,90 mm |
| HY402FORM | -65 °C ~ +150 °C | 9.5 mm | 41 kg/km | DC ~ 26,5 GHz | 50 Ohms | TPC braid Ø 3,55 mm | Unjacketed |
| HY402FORM-35 | -65 °C ~ +150 °C | 8 mm | 52 kg/km | DC ~ 18 GHz | 35 Ohms | TPC braid Ø 3,50 mm | Unjacketed |
| HY402FORMFEP | -65 °C ~ +150 °C | 9.5 mm | 48 kg/km | DC ~ 26,5 GHz | 50 Ohms | TPC braid Ø 3,55 mm | FEP Ø 4,11 mm |
| HY405FORM | -65 °C ~ +150 °C | 5.4 mm | 16 kg/km | DC ~ 40 GHz (up to 67 GHz optional) | 50 Ohms | TPC braid Ø 2,17 mm | Unjacketed |
| HY405FORMDS | -55 °C ~ +125 °C | 6 mm | 16 kg/km | DC ~ 40 GHz (up to 67 GHz optional) | 50 Ohms | TS Copper braid Ø 2,20 mm | Unjacketed |
| HY405FORMFEP | -65 °C ~ +150 °C | 5.4 mm | 19 kg/km | DC ~ 40 GHz (up to 67 GHz optional) | 50 Ohms | TPC braid Ø 2,17 mm | FEP Ø 2,60 mm |

# SEMI-RIGID

Semi-rigid cables are valued for their partial rigidity.
This unique characteristic allows for precise shaping using dedicated tooling — but only once. Their limited flexibility ensures long-term performance stability, even under harsh environmental conditions. This makes them essential for inter-component connections within enclosures or racks.



Available primarily in four diameters (0.047, 0.085, 0.141, and 0.250 inches), these cables offer an extended frequency range from 18 to 110 GHz, making them ideal for applications requiring wideband transmission and extreme precision. Common connector types, such as SMA (3.5mm, 2.92mm, 2.4mm, 1.85mm), further enhance their versatility.

| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Outer conductor | Jacket |
|---|---|---|---|---|---|---|---|
| HY047CU | -40 °C ~ +100 °C | 4.2 mm | 6 kg/km | DC ~ 110 GHz | 50 Ohms | Copper tube Ø 1,19 mm | Unjacketed |
| HY047CU-25 | -55 °C ~ +125 °C | 6 mm | 6 kg/km | DC ~ 20 GHz | 25 Ohms | Copper tube Ø 1,19 mm | Unjacketed |
| HY047CUTP | -40 °C ~ +100 °C | 4.2 mm | 6 kg/km | DC ~ 110 GHz | 50 Ohms | TPC tube Ø 1,19 mm | Unjacketed |
| HY047ALTP | -40 °C ~ +100 °C | 1,27 mm | 6 kg/km | DC ~ 110 GHz | 50 Ohms | TPA tube Ø 1,19 mm | Unjacketed |
| HY085CU | -40 °C ~ +125 °C | 7.63 mm | 20 kg/km | DC ~ 65 GHz | 50 Ohms | Copper tube Ø 2,20 mm | Unjacketed |
| HY085CU-35 | -55 °C ~ +125 °C | 3,18 mm | 29,8 kg/km | DC ~ 50 GHz | 35 Ohms | Copper tube Ø 2,20 mm | Unjacketed |
| HY085CUTP | -40 °C ~ +125 °C | 7.63 mm | 20 kg/km | DC ~ 65 GHz | 50 Ohms | TPC tube Ø 2,20 mm | Unjacketed |
| HY085ALTP | -40 °C ~ +125 °C | 1,78 mm | 20 kg/km | DC ~ 65 GHz | 50 Ohms | TPA tube Ø 2,20 mm | Unjacketed |
| HY141CU | -40 °C ~ +125 °C | 15 mm | 46 kg/km | DC ~ 34 GHz | 50 Ohms | Copper tube Ø 3,58 mm | Unjacketed |
| HY141CUTP | -40 °C ~ +125 °C | 15 mm | 46 kg/km | DC ~ 34 GHz | 50 Ohms | TPC tube Ø 3,58 mm | Unjacketed |
| HY141CUTP-35 | -50 °C ~ +125 °C | 15 mm | 51 kg/km | DC ~ 18 GHz | 35 Ohms | TPC tube Ø 3,58 mm | Unjacketed |
| HY141ALTP | -40 °C ~ +125 °C | 3,18 mm | 46 kg/km | DC ~ 34 GHz | 50 Ohms | TPA tube Ø 3,58 mm | Unjacketed |
| HY250CU | -40 °C ~ +90 °C | 22.23 mm | 140 kg/km | DC ~ 18 GHz | 50 Ohms | Copper tube Ø 6,35 mm | Unjacketed |
| HY250CUTP | -40 °C ~ +90 °C | 22.23 mm | 140 kg/km | DC ~ 18 GHz | 50 Ohms | TPC tube Ø 6,35 mm | Unjacketed |
| HY250ALTP | -40 °C ~ +100 °C | 22.23 mm | 140 kg/km | DC ~ 18 GHz | 50 Ohms | TPA tube Ø 6,35 mm | Unjacketed |

# CORRUGATED

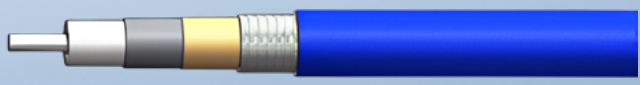
Designed to combine routing flexibility and electrical stability, corrugated cables offer excellent compatibility with environments subject to high mechanical stress. Their distinctive geometry ensures strong power handling, controlled insertion losses, and easy integration into complex RF systems.



| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Jacket |
|---|---|---|---|---|---|---|
| HY14SFR | -40 °C ~ +85 °C | 13 mm (stat) / 25 mm (dyn) | 78 kg/km | DC ~ 20 GHz | 50 Ohms | LSZH PE Ø 7,7 mm |
| HY12R | -40 °C ~ +85 °C | 50 mm (stat) / 125 mm (dyn) | 220 kg/km | DC ~ 8,8 GHz | 50 Ohms | PE Ø 15,7 mm |
| HY12S | -40 °C ~ +85 °C | 40 mm (stat) / 80 mm (dyn) | 210 kg/km | DC ~ 10 GHz | 50 Ohms | PE Ø 13,4 mm |
| HY12RFR | -40 °C ~ +85 °C | 50 mm (stat) / 125 mm (dyn) | 220 kg/km | DC ~ 8,8 GHz | 50 Ohms | LSZH PE Ø 15,7 mm |
| HY12SFR | -40 °C ~ +85 °C | 40 mm (stat) / 80 mm (dyn) | 210 kg/km | DC ~ 10 GHz | 50 Ohms | LSZH PE Ø 13,4 mm |
| HY78R | -40 °C ~ +85 °C | 120 mm (stat) / 250 mm (dyn) | 410 kg/km | DC ~ 5 GHz | 50 Ohms | PE Ø 27,6 mm |
| HY78RFR | -40 °C ~ +85 °C | 120 mm (stat) / 250 mm (dyn) | 445 kg/km | DC ~ 5 GHz | 50 Ohms | LSZH PE Ø 27,6 mm |
| HY114R | -40 °C ~ +85 °C | 200 mm (stat) / 380 mm (dyn) | 800 kg/km | DC ~ 4 GHz | 50 Ohms | PE Ø 38,60 mm |
| HY114RFR | -40 °C ~ +85 °C | 200 mm (stat) / 380 mm (dyn) | 860 kg/km | DC ~ 4 GHz | 50 Ohms | LSZH PE Ø 38,6 mm |
| HY158R | -55 °C ~ +85 °C | 300 mm (stat) / 510 mm (dyn) | 1055 kg/km | DC ~ 2,7 GHz | 50 Ohms | PE Ø 50 mm |

# TEMPERATURE STABLE

Designed to minimize phase drift and insertion loss variations caused by temperature changes, these cables ensure consistent electromagnetic performance in demanding environments. Their construction provides excellent measurement repeatability, even under unstable thermal conditions.



| Part Number | Temperature range | Minimum bend radius | Weight | Frequency range | Impedance | Jacket |
|---|---|---|---|---|---|---|
| HY047PS | -65 °C ~ +165 °C | 6,35 mm (stat) / 12,70 mm (dyn) | 5,6 kg/km | DC ~ 50 GHz | 50 Ohms | FEP Ø 1,422 mm |
| HY360PS | -55 °C ~ +125 °C | 18 mm (stat) / 36 mm (dyn) | 33 kg/km | DC ~ 40 GHz | 50 Ohms | FEP Ø 3,60 mm |
| HY402FORMPS | -65 °C ~ +200 °C | 8 mm (stat) | 33 kg/km | DC ~ 30 GHz | 50 Ohms | Unjacketed |
| HY405FORMPS | -65 °C ~ +200 °C | 6 mm (stat) | 16 kg/km | DC ~ 40 GHz | 50 Ohms | Unjacketed |
| HY450PS | -55 °C ~ +125 °C | 21 mm (stat) / 43 mm (dyn) | 46 kg/km | DC ~ 26,5 GHz | 50 Ohms | FEP Ø 4,30 mm |

# DO YOU NEED ADAPTERS FOR YOUR APPLICATION? SEE EXAMPLES BELOW

## INTER-SERIES ADAPTERS

Inter-series adapters enable the connection of connectors from different interface types or series. They provide a reliable transition between two connector standards while maintaining the electrical and mechanical integrity of the RF signal path.



| Part Number | Connector #1 | Connector #2 | Frequency bandwidth | Impedance | VSWR | Temperature range |
|---|---|---|---|---|---|---|
| HY0117D | APC-7 | N male | DC - 18 GHz | 50 Ohms | 1,10:1 | -55°C / +165°C |
| HY0117F | APC-7 | N female | DC - 18 GHz | 50 Ohms | 1,10:1 | -55°C / +165°C |
| HY0123D | APC-7 | 3,5mm male | DC - 18 GHz | 50 Ohms | 1,10:1 | -55°C / +165°C |
| HY0123F | APC-7 | 3,5mm female | DC - 18 GHz | 50 Ohms | 1,10:1 | -55°C / +165°C |
| HY03D11D | 2,92mm male | 2,4mm male | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03D11F | 2,92mm female | 2,4mm male | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03F11D | 2,92mm male | 2,4mm female | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03F11F | 2,92mm female | 2,4mm female | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03F11X | 2,92mm female | 2,4mm female | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03D17D | N male | 2,4mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03D17F | N female | 2,4mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03F17D | N male | 2,4mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03F17F | N female | 2,4mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03D23D | 3,5mm male | 2,4mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03D23F | 3,5mm female | 2,4mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03F23D | 3,5mm male | 2,4mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY03F23F | 3,5mm female | 2,4mm female | DC - 33 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY11D17D | N male | 2,92mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11D17F | N female | 2,92mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11F17D | N male | 2,92mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11F17F | N female | 2,92mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11D23D | 3,5mm male | 2,92mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11D23F | 3,5mm female | 2,92mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11F23D | 3,5mm male | 2,92mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11F23F | 3,5mm female | 2,92mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY11F23X | 3,5mm female | 2,92mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17F19T | N female bulkhead | SMA female | DC - 18 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY17D23D | N male | 3,5mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17D23F | N male | 3,5mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17F23D | N female | 3,5mm male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17F23F | N female | 3,5mm female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17D24D | N male | TNC male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17D24F | N male | TNC female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY17F24D | N female | TNC male | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |

| Part Number | Connector #1 | Connector #2 | Frequency bandwidth | Impedance | VSWR | Temperature range |
|---|---|---|---|---|---|---|
| HY17F24F | N female | TNC female | DC - 18 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY19D24F | MA male | TNC female | DC - 18GHz | 50 Ohms | 1,30:1 | -55°C / +165°C |
| HY21D23D | 3,5mm male | SMA male | DC - 27 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY21D23F | 3,5mm female | SMA male | DC - 27 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY21F23D | 3,5mm male | SMA female | DC - 27 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY21F23F | 3,5mm female | SMA female | DC - 27 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY22D22D | 1,85mm male | 1,85mm male | DC - 65 GHz | 50 Ohms | 1,30:1 | -55°C / +165°C |
| HY22D23D | 3,5mm male | 1,85mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY22D23F | 3,5mm female | 1,85mm male | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY22F22F | 1,85mm female | 1,85mm female | DC - 65 GHz | 50 Ohms | 1,30:1 | -55°C / +165°C |
| HY22F23D | 3,5mm male | 1,85mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY22F23F | 3,5mm female | 1,85mm female | DC - 33 GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |

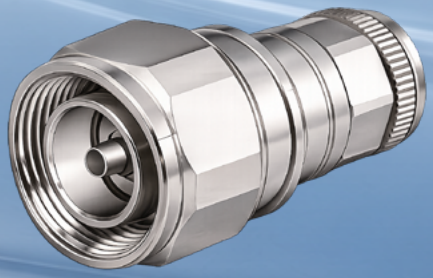
## IN-SERIES ADAPTERS

In-series adapters are designed to connect two connectors of the same series. They are commonly used to extend, reconfigure, or facilitate existing connections while preserving the original interface characteristics and ensuring optimal signal continuity.



| Part Number | Connector #1 | Connector #2 | Frequency bandwidth | Impedance | VSWR | Temperature range |
|---|---|---|---|---|---|---|
| HY03D03D | 2,4mm male | 2,4mm male | DC - 50 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03D03F | 2,4mm female | 2,4mm male | DC - 50 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY03F03F | 2,4mm female | 2,4mm female | DC - 50 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY11C11F | 2,92mm male | 2,92 mm female | DC - 40 GHz | 50 Ohms | 1,25:1 | -55°C / +165°C |
| HY11D11D | 2,92mm male | 2,92mm male | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY11F11F | 2,92mm female | 2,92mm female | DC - 40 GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY17C17F | N male | N female | DC - 18 GHz | 50 Ohms | 1,25:1 | -55°C / +165°C |
| HY17F17T | N female | N female | DC - 18GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY17F17X | N female | N female | DC - 18GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY21D21D | SMA male | SMA male | DC - 26,5GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |
| HY21D21T | SMA male | SMA female bulkhead | DC - 26,5GHz | 50 Ohms | 1,15:1 | -55°C / +165°C |
| HY21F21X | SMA female | SMA female | DC - 26,5GHz | 50 Ohms | 1,20:1 | -55°C / +165°C |

**CONTACT US FOR MORE INFORMATION!**





# TOOLS, OPTIONS AND ACCESSORIES : HYTEM EXPERTISE AT THE SERVICE OF YOUR RF LINKS

To ensure the reliability, durability, and precision of your radio frequency and microwave installations, HYTEM provides a comprehensive range of specialized tooling, protective components, and tailored services. Whether for field assembly, precision bending or optimizing cabling performance in demanding environments (laboratories, critical infrastructure, embedded systems), discover our full suite of complementary solutions.

## ASSEMBLY TOOLS

Designed to meet the highest standards of quality and performance, our tools ensure optimal connection for all your RF and microwave applications.

• ***Crimping tools***
Essential for making secure and durable connections. Manufactured with high-quality materials, our crimping pliers withstand intensive use while delivering maximum reliability.



• ***Torque wrenches***
Specially designed for assembling various connectors. Each wrench is carefully preconfigured with a precise torque setting, ensuring consistent, repeatable, and compliant assembly.



• ***Semi-rigid forming tools***
High precision bending tools designed to help you bend, twist, or form your semi-rigid cables. They ensure precise, consistent bending without compromising cable performance.



• ***Stripping tools***
State-of-the-art, high performance, and versatile stripping tools designed to simplify and speed up your wire and cable preparation operations. Their ergonomic design ensures a comfortable grip for prolonged use without fatigue.



## INTEGRATION AND PROTECTION ACCESSORIES

Optimize the technical integration, durability, and electromagnetic compatibility (EMC) of your cable assemblies.

• ***Protective sheaths and sleeves***
Plastic or metal sheaths designed to safeguard your RF cables against mechanical stress and extreme environmental conditions.



• ***Marking and identification***
Labeling solutions (heat-shrink or self-wrapping) for clear, legible and lasting cable identification.



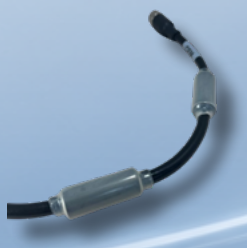

• ***Plastic Caps***
Plastic caps designed to protect external threads, tubes, and exposed surfaces from dust, moisture, and mechanical damage during storage, transportation, and assembly. Available in a wide range of sizes, they provide a practical and cost-effective protection solution.



• ***interface protective caps***
Effective protection against dust and environmental hazards for your unused connectors.

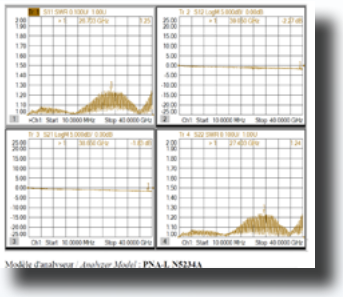


• ***Ferrites***
High-performance components designed to reduce RF interference and optimize EMC within your systems.



## TECHNICAL OPTIONS AND CUSTOM SERVICES

Designed to meet the highest standards of quality and performance, our tools ensure optimal connection for all your RF and microwave applications.
Maximize signal precision and synchronization with our laboratory measurement and tuning services.



• ***Measurement (S-parameter)***
S-parameter data available on request, measured and characterized for your specific frequency band.




• ***Phase matching***
Phase-matched cable assemblies manufactured according to your exact specifications.




• ***Linear delay***
Delay measured and adjusted to your requirements to control the timing and synchronization of your RF signals.

HYTEM
Microwave Systems

# Let’s discuss your project


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