



Products

- Broadcast Antenna Panels (frequency bands: VHF I, FM, VHF III, UHF IV-V)
- Broadcast Antenna Systems
- Components: power dividers, transmission lines, elbows, adapters, U-links, connectors:
- Patch panels
- Channel combiners (star point, double bridge, line)

Services

- Coverage planning
- Coverage analysis
- Interference analysis

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COEL products and services

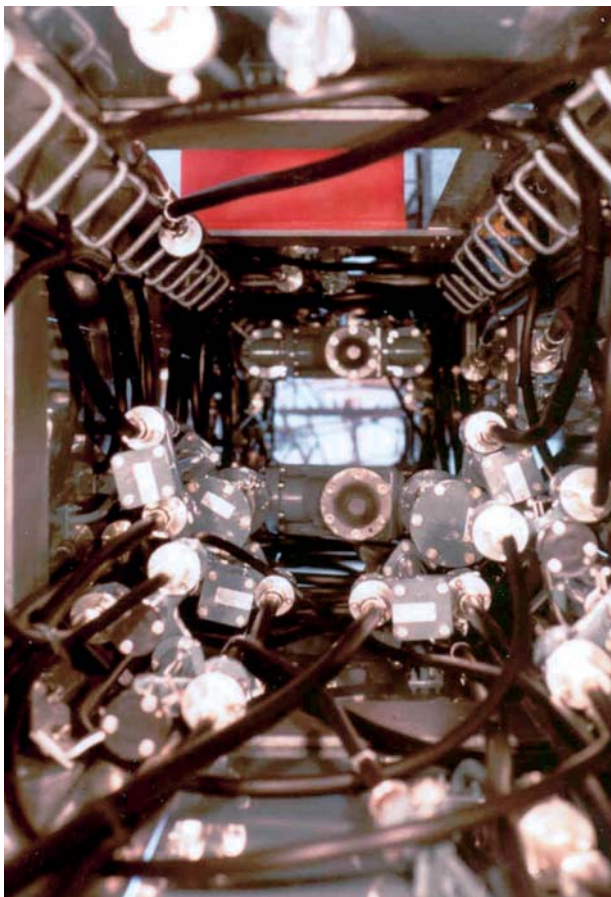


□ Within the DMT group, antenna systems and related components are manufactured and supplied by **COEL** Company, operating in the industry since 1954.

COEL takes pride in being able to direct transmitter power exactly where and in the shape required by the Client's specific requirements, with minimum loss. To this end, **COEL** continuously invests in research and maintains its engineering skills to state-of-the-art level, supported by the latest design aids.

In the Company's vision, achievement of sophisticated system performance must be matched with an all-proof reliability level: this is the area where **COEL's** 50 years of experience and technological know-how make an important difference.

Main features of COEL products:



- Frequency bands: VHF I, FM, VHF III, UHF IV-V
- Broadband design
- Linear (H and V) and circular polarization
- Low V.S.W.R.
- Customer-designed horizontal and vertical patterns
- Ability to multiplex several channels in the same antenna system
- High power capability
- Split feed for emergency situations
- Optimum coverage area
- Cost-effective antenna solutions
- Maintenance-free

History

□ **COEL** joined the DMT Group in 2003, integrating into and complementing DMT's ability to offer complete systems that cover every aspect of signal broadcasting, from studios to the viewer's home and back.

COEL has delivered more than one thousand high power systems, up to 250 kW, in its fifty year history to the following worldwide locations.

EUROPE: Austria, Turkey, Bulgaria, Poland, Rumania, Albania, Jugoslavija and Greece

NORTH and SOUTH AMERICA: Canada, Mexico, Nicaragua, Panama, Uruguay, Brazil, Argentina, Peru, Chile, Venezuela, Colombia, Dominican Rep.

MIDDLE EAST: Syria, Iran, Kuwait, Lebanon.

AFRICA: Egypt, South Africa, Nigeria, Guinea, Sudan, Mozambique.

ASIA: Indonesia, Malaysia, Brunei, Korea, China, Pakistan.

AUSTRALIA, NEW ZEALAND.

COEL has implemented complete national networks in Italy (RAI Radiotelevisione Italiana), Portugal, Greece, ex Yugoslavia and Tunisia.

□ **COEL** complements its antenna system and components offers with coverage planning services. Based on its long industry experience, **COEL** analyzes the area to be covered, and identifies the optimum shape of the radiation pattern, taking into account specified field levels and possible interference. A distinctive feature of the coverage planning service provided by **COEL** is the capability to directly confirm the feasibility and the cost-effectiveness of the projected solutions, through hands-on system design and manufacturing.



Services: coverage planning and analysis

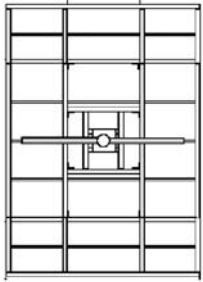


Product Lines

□ COEL product lines, listed below, are detailed on the following pages.

- VHF I Panels
- FM Panels (square tower)
- FM Panels (triangular tower)
- VHF III Panels
- UHF IV-V Panels
- Dipoles & Log-Periodic Antennas
- Yagi Antennas
- Ancillary components - Power Dividers (2 to 8 ways)
- Ancillary components - other System Components

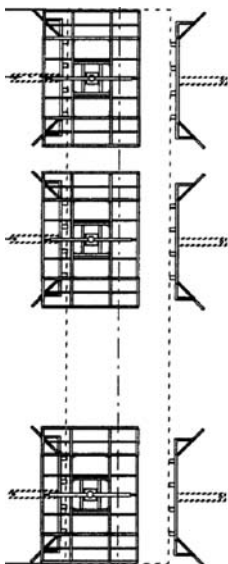
VHF I Panels



Antenna Panel
ADL 115-50-1/2
ADL 155-50-1/2/3

| Product Code | ADL 115-50-1 | ADL 115-50-2 | ADL 155-50-1 | ADL 155-50-2 | ADL 155-50-3 | |
|---|---|--------------|--------------|--------------|--------------|-----------|
| Frequency range [MHz] | 52.5 - 63.0 | 60.0 - 68.0 | 63.0 - 72.0 | 76.0 - 82.0 | 81.0 - 88.0 | |
| Polarization | horizontal | horizontal | horizontal | horizontal | horizontal | |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA | 7/8" EIA | 7/8" EIA | 7/8" EIA | |
| VSWR | ≤1.1 | ≤1.1 | ≤1.1 | ≤1.1 | ≤1.1 | |
| Weight (kg/lbs) | 115/253 | 105/231 | 90/198 | 55/121 | 50/110 | |
| Wind Load @160 km/h | front | 2560 N | 2300 N | 2110 N | 1330 N | 1210 N |
| | side | 870 N | 780 N | 720 N | 380 N | 340 N |
| Max Power Capability (mid-band p.v. +10% aural) | 5 kW | 5 kW | 5 kW | 5 kW | 5 kW | |
| Peak Power Gain ref.to λ/2 dipole midband [dBd] | 6.4 | 6.4 | 6.4 | 6.4 | 6.4 | |
| Half-Power Beamwidth (midband) | E-plane | 70° | 70° | 70° | 70° | 70° |
| | H-plane | 80° | 80° | 80° | 80° | 80° |
| Size [mm/in] | h | 3800/149.6 | 3400/133.8 | 3150/124.0 | 2700/106.3 | 2500/98.4 |
| | w | 2800/110.2 | 2500/98.4 | 2300/90.5 | 2000/78.7 | 1800/70.8 |
| | d | 1595/62.8 | 1355/53.3 | 1275/50.2 | 1150/45.2 | 1090/42.9 |
| Materials | Hot-dip galvanized steel reflector - Stainless steel radiating element - Fiberglass cover on the feeding lines (available on request) | | | | | |

Examples of available systems ~ panel ADL155-50-1 (for other systems, please contact COEL/DMT sales network)

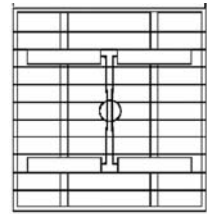


| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (2) | Height of Array [m/ft] | Wind Load @ 160 km/h [kN] | Half Power Beamwidth [deg] (3) | Peak Power Gain [dBd] (4) |
|----------|---------------|---------------------------|------------------------|---------------------------|--------------------------------|---------------------------|
| | | | | | horizontal plane | |
| 1 | 2 | 190/418 | 3.1/10'2" | 3.2 | 150 | 3.8 |
| | 3 | 285/628 | | 4.9 | 240 | 2.0 |
| | 4 | 380/837 | | 5.8 | 360 | 0.8 |
| 2 | 2 | 380/837 | 7.3/23'11" | 6.5 | 180 | 7.4 |
| | 3 | 570/1256 | | 9.7 | 270 | 5.6 |
| | 4 | 760/1675 | | 11.6 | 360 | 4.4 |
| 3 | 2 | 570/1256 | 11.5/37'9" | 9.7 | 180 | 8.9 |
| | 3 | 855/1884 | | 14.6 | 270 | 7.1 |
| | 4 | 1140/2513 | | 17.5 | 360 | 5.9 |
| 4 | 2 | 760/1675 | 15.7/51'6" | 13.0 | 180 | 10.2 |
| | 3 | 1140/2513 | | 19.4 | 270 | 8.4 |
| | 4 | 1520/3350 | | 23.3 | 360 | 7.2 |
| 5 | 2 | 950/2094 | 19.9/65'3" | 16.2 | 180 | 11.2 |
| | 3 | 1425/3141 | | 24.3 | 270 | 9.4 |
| | 4 | 1900/4188 | | 29.1 | 360 | 8.2 |
| 6 | 2 | 1140/2513 | 24.1/79'1" | 19.5 | 180 | 12.0 |
| | 3 | 1710/3769 | | 29.1 | 270 | 10.2 |
| | 4 | 2280/5026 | | 34.9 | 360 | 9.0 |
| 7 | 2 | 1330/2932 | 28.3/92'10" | 22.7 | 180 | 12.6 |
| | 3 | 1995/4398 | | 34.0 | 270 | 10.8 |
| | 4 | 2660/5864 | | 40.8 | 360 | 9.6 |
| 8 | 2 | 1520/3350 | 32.5/106'8" | 26.0 | 180 | 13.2 |
| | 3 | 2280/5026 | | 38.8 | 270 | 11.4 |
| | 4 | 3040/6701 | | 46.6 | 360 | 10.2 |

- (1) square tower cross section, side 2300 mm / 90.5 inches
- (2) panels and feeding arrangement only
- (3) equal power
- (4) equal power, no beam tilt, no null fill, midband, typical

FM Panels - Square tower

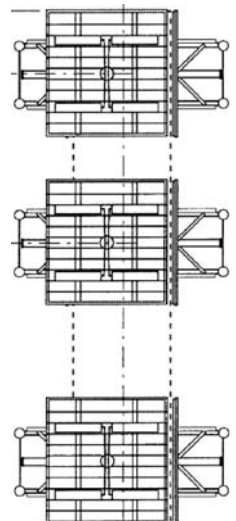
| Product Code | AC465-50-1 | ADL125-50-1 | CPL125-50-Q | |
|---|--|--------------|-----------------------------------|------------|
| Frequency range [MHz] | 87.5 - 108.0 | 87.5 - 108.0 | 87.5 - 108.0 | |
| Polarization | vertical/horizontal | horizontal | circular/elliptical/crossed | |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA | 7/8" EIA | |
| VSWR | ≤1.2 | ≤1.25 | ≤1.2(single input) ≤1.1(combined) | |
| Weight (kg/lbs) | 90/198.4 | 45/99.2 | 90/198.4 | |
| Wind Load @ 160 km/h | front | 2030 N | 2000 N | |
| | side | 1000 N | 570 N | |
| Max Power Capability (mid-band p.v. +10% aural) | 5 kW | 5 kW | 3 kW (each input) | |
| Peak Power Gain ref.to λ/2 dipole midband [dBd] | 8.2 | 6.4 | 7.2 (c.p.) | |
| Half-Power Beamwidth (midband) | E-plane | 62° | 65° | |
| | H-plane | 50° | 80° | |
| Size [mm/in] | h | 2500/98.4 | 2500/98.4 | 3000/118.1 |
| | w | 2500/98.4 | 1900/74.8 | 3000/118.1 |
| | d | 1018/40.0 | 950/37.4 | 900/35.4 |
| Materials | Hot-dip galvanized steel reflector - Stainless steel radiating element Fiberglass cover on the feeding lines (available on request) | | | |



Antenna Panel
AC 465-50-1

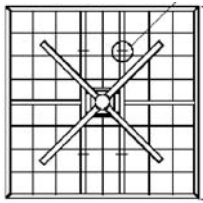
Examples of available systems ~ panel AC465-50-1 (for other systems, please contact COEL/DMT sales network)

| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (2) | Height of Array [m/ft] | Wind Load @ 160 Km/h [kN] | Half Power Beamwidth [deg] (3) horizontal plane | Peak Power Gain [dBd] (4) |
|----------|---------------|---------------------------|------------------------|---------------------------|--|---------------------------|
| 1 | 2 | 190/418 | 2.5/8'2" | 3.4 | 150 | 5.1 |
| | 3 | 285/628 | | 5.0 | 240 | 3.3 |
| | 4 | 380/837 | | 5.9 | 360 | 2.0 |
| 2 | 2 | 380/837 | 5.7/18'8" | 6.8 | 150 | 9.0 |
| | 3 | 570/1256 | | 10.0 | 240 | 7.2 |
| | 4 | 760/1675 | | 11.7 | 360 | 5.9 |
| 3 | 2 | 570/1256 | 8.9/29'2" | 10.2 | 150 | 10.7 |
| | 3 | 855/1884 | | 15.0 | 240 | 8.9 |
| | 4 | 1140/2513 | | 17.6 | 360 | 7.6 |
| 4 | 2 | 760/1675 | 12.1/39'8" | 13.6 | 150 | 11.9 |
| | 3 | 1140/2513 | | 20.0 | 240 | 10.1 |
| | 4 | 1520/3350 | | 23.4 | 360 | 8.8 |
| 5 | 2 | 950/2094 | 15.3/50'2" | 17.0 | 150 | 12.9 |
| | 3 | 1425/3141 | | 25.0 | 240 | 11.1 |
| | 4 | 1900/4188 | | 29.3 | 360 | 9.8 |
| 6 | 2 | 1140/2513 | 18.5/60'8" | 20.4 | 150 | 13.7 |
| | 3 | 1710/3769 | | 30.0 | 240 | 11.9 |
| | 4 | 2280/5026 | | 35.1 | 360 | 10.6 |
| 7 | 2 | 1330/2932 | 21.7/71'2" | 23.8 | 150 | 14.3 |
| | 3 | 1995/4398 | | 35.0 | 240 | 12.5 |
| | 4 | 2660/5864 | | 41.0 | 360 | 11.2 |
| 8 | 2 | 1520/3350 | 24.9/81'8" | 27.2 | 150 | 14.9 |
| | 3 | 2280/5026 | | 40.0 | 240 | 13.1 |
| | 4 | 3040/6701 | | 46.8 | 360 | 11.8 |



- (1) square tower cross section, side 2000 mm / 78.7 inches
(2) panels and feeding arrangement only
(3) equal power
(4) equal power, no beam tilt, no null fill, midband, typical

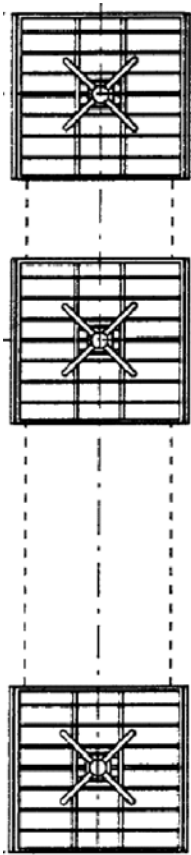
FM Panels - Triangular tower



Antenna Panel
CPL 125-50-T

| Product Code | ADL125-50-T | CPL125-50-T |
|---|--|-------------------------------------|
| Frequency range [MHz] | 87.5 -108.0 | 87.5 -108.0 |
| Polarization | vertical/horizontal | circular/elliptical/crossed |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA |
| VSWR | ≤1.2 | ≤1.2 (single input) ≤1.1 (combined) |
| Weight (kg/lbs) | 35/77 | 45/99 |
| Wind Load @160 km/h | front | 1270 N |
| | side | 330 N |
| Max Power Capability (mid-band p.v. +10% aural) | 5 kW | 3 kW (each input) |
| Peak Power Gain ref.to λ/2 dipole midband [dBd] | 5.1 | 5.1 (c.p.) |
| Half-Power Beamwidth (midband) | E-plane | 115° |
| | H-plane | 140° |
| Size [mm/in] | h | 1900/74.8 |
| | w | 1900/74.8 |
| | d | 1100/43.3 |
| Materials | Hot-dip galvanized steel reflector - Stainless steel radiating element Fiberglass cover on the feeding lines (available on request) | |

Examples of available systems ~ panel CPL125-50-T (for other systems, please contact COEL/DMT sales network)

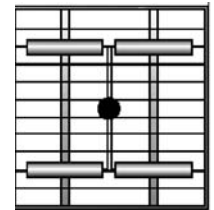


| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (2) | Height of Array [m/ft] | Wind Load @ 160 Km/h [kN] | Half Power Beamwidth [deg] (3) horizontal plane | Peak Power Gain [dBd] (4) |
|----------|---------------|---------------------------|------------------------|---------------------------|--|---------------------------|
| 1 | 2 | 190/418 | 1.9/6'3" | 3.4 | 210 | 5.1 |
| | 3 | 285/628 | | 5.0 | 360 | 3.3 |
| 2 | 2 | 380/837 | 4.7/15'5" | 6.8 | 210 | 9.2 |
| | 3 | 570/1256 | | 10.0 | 360 | 7.4 |
| 3 | 2 | 570/1256 | 7.5/24'7" | 10.2 | 210 | 10.9 |
| | 3 | 855/1884 | | 15.0 | 360 | 9.1 |
| 4 | 2 | 760/1675 | 10.3/33'10" | 13.6 | 210 | 12.1 |
| | 3 | 1140/2513 | | 20.0 | 360 | 10.3 |
| 5 | 2 | 950/2094 | 13.1/43' | 17.0 | 210 | 12.9 |
| | 3 | 1425/3141 | | 25.0 | 360 | 11.1 |
| 6 | 2 | 1140/2513 | 15.9/52'2" | 20.4 | 210 | 13.7 |
| | 3 | 1710/3769 | | 30.0 | 360 | 11.9 |
| 7 | 2 | 1330/2932 | 18.7/61'4" | 23.8 | 210 | 14.2 |
| | 3 | 1995/4398 | | 35.0 | 360 | 12.4 |
| 8 | 2 | 1520/3350 | 21.5/70'6" | 27.2 | 210 | 14.7 |
| | 3 | 2280/5026 | | 40.0 | 360 | 12.9 |

- (1) square tower cross section, side 1600 mm / 63.0 inches
- (2) panels and feeding arrangement only
- (3) equal power
- (4) equal power, no beam tilt, no null fill, midband, typical

VHF III Panels

| Product Code | ACL438-50-S | AC837-50-S | AC438-50-S |
|---|---------------------|--------------------------|--------------------------|
| Frequency range [MHz] | 174 - 240 | 174 - 230 | 174 - 240 |
| Polarization | vertical/horizontal | horizontal | vertical/horizontal |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA | 7/8" EIA |
| VSWR | ≤1.1 | ≤1.1 | ≤1.1 |
| Weight (kg/lbs) | 20/44 | 75/165 | 36/79 |
| Wind Load @ 160 km/h | front | 775 N | 775 N |
| | side | 385 N | 385 N |
| Max Power Capability (mid-band p.v. +10% aural) | 5 kW | 5 kW | 5 kW |
| Peak Power Gain ref.to λ/2 dipole midband [dBd] | 8.1 | 10.9 | 8.1 |
| Half-Power Beamwidth (midband) | E-plane | 63° | 63° |
| | H-plane | 58° | 58° |
| Size [mm/in] | h | 1290/50.78 | 1290/50.78 |
| | w | 1240/48.81 | 1240/48.81 |
| | d | 590/23.22 | 590/23.22 |
| Materials (reflector and radiating elements) | aluminium | hot dip galvanized steel | hot dip galvanized steel |

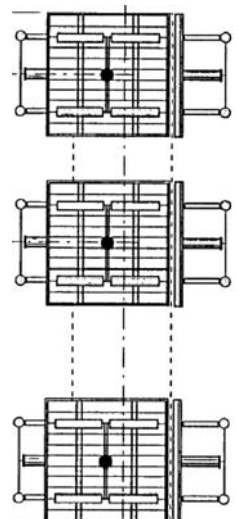


Antenna Panel
ACL 438-50-S
AC 438-50-S

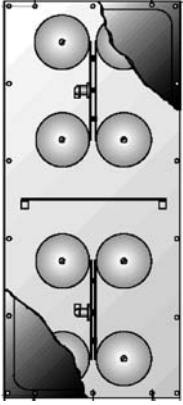
Examples of available systems ~ panel ACL438-50-S (for other systems, please contact COEL/DMT sales network)

| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (2) | Height of Array [m/ft] | Wind Load @ 160 Km/h [kN] | Half Power Beamwidth [deg] (3) | Peak Power Gain [dBd] (4) |
|----------|---------------|---------------------------|------------------------|---------------------------|--------------------------------|---------------------------|
| | | | | | horizontal plane | |
| 1 | 2 | 80/176 | 1.3/4'3" | 1.3 | 150 | 5.1 |
| | 3 | 120/264 | | 1.9 | 240 | 3.3 |
| | 4 | 160/352 | | 2.2 | 360 | 2.0 |
| 2 | 2 | 160/352 | 3/9'10" | 2.6 | 150 | 9.0 |
| | 3 | 240/529 | | 3.8 | 240 | 7.2 |
| | 4 | 320/705 | | 4.5 | 360 | 5.9 |
| 3 | 2 | 240/529 | 4.8/15'9" | 3.9 | 150 | 10.8 |
| | 3 | 360/793 | | 5.7 | 240 | 9.0 |
| | 4 | 480/1058 | | 6.7 | 360 | 7.7 |
| 4 | 2 | 320/705 | 6.5/21'4" | 5.1 | 150 | 12.0 |
| | 3 | 480/1058 | | 7.6 | 240 | 10.2 |
| | 4 | 640/1410 | | 8.9 | 360 | 8.9 |
| 5 | 2 | 400/881 | 8.3/27'3" | 6.4 | 150 | 13.0 |
| | 3 | 600/1322 | | 9.5 | 240 | 11.2 |
| | 4 | 800/1763 | | 11.2 | 360 | 9.9 |
| 6 | 2 | 480/1058 | 10/32'10" | 7.7 | 150 | 13.8 |
| | 3 | 720/1587 | | 11.4 | 240 | 12.0 |
| | 4 | 960/2116 | | 13.4 | 360 | 10.7 |
| 7 | 2 | 560/1234 | 11.8/38'9" | 9.0 | 150 | 14.4 |
| | 3 | 840/1851 | | 13.3 | 240 | 12.6 |
| | 4 | 1120/2469 | | 15.6 | 360 | 11.3 |
| 8 | 2 | 640/1410 | 13.5/44'3" | 10.3 | 150 | 15.0 |
| | 3 | 960/2116 | | 15.3 | 240 | 13.2 |
| | 4 | 1280/2821 | | 17.9 | 360 | 11.9 |

- (1) square tower cross section, side 1000 mm / 39.4 inches
(2) panels and feeding arrangement only
(3) equal power
(4) equal power, no beam tilt, no null fill, midband, typical



UHF IV-V Panels

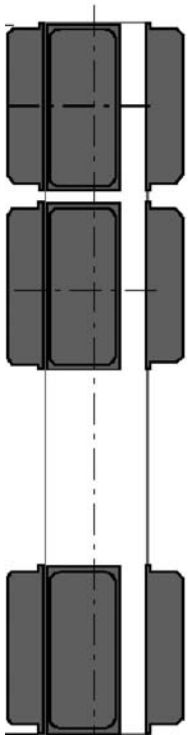


Antenna Panel
AC 8413
AC 8414

| Product Code | AC8413-50 | AC8414-50-5 | AC4411-50 | AC8423-50 | AC4421-50 | |
|--|--------------|-------------------|------------|-----------|-----------|----------|
| Frequency range [MHz] | 470 - 860 | 470 - 860 | 470 - 860 | 470 - 860 | 470 - 860 | |
| Polarization | horizontal | horizontal | horizontal | vertical | vertical | |
| Input Connector (50 Ω impedance) | 7/8" EIA (*) | dual 7/8" EIA (*) | 7/8" EIA | 7/8" EIA | 7/8" EIA | |
| VSWR | ≤1.1 | ≤1.1 | ≤1.1 | ≤1.1 | ≤1.1 | |
| Weight (kg/lbs) | 18.5/40 | 17/37 | 8.5/18 | 17.5/38 | 8.5/18 | |
| Wind Load @160 km/h | front | 775 N | 775 N | 525 N | 256 N | |
| | side | 285 N | 285 N | 180 N | 100 N | |
| Max Power Capability (mid-band p.v. +10% aural) | 3.5 kW | 7 kW | 3.5 kW | 3.5 kW | 3.5 kW | |
| Peak Power Gain ref.to λe/2 dipole midband [dBd] | 12.3 | 12.3 | 9.3 | 11.7 | 8.7 | |
| Half-Power Beamwidth (midband) | E-plane | 60° | 60° | 28° | 58° | |
| | H-plane | 22° | 22° | 70° | 70° | |
| Size [mm/in] | h | 1000/39.3 | 1000/39.3 | 450/17.7 | 780/30.7 | 450/17.7 |
| | w | 450/17.7 | 450/17.7 | 450/17.7 | 400/15.7 | 450/17.7 |
| | d | 278/10.9 | 278/10.9 | 278/10.9 | 238/9.3 | 238/9.3 |

(*) 7/16 DIN connectors available on request

Examples of available systems ~ panel AC8413-50 (for other systems, please contact COEL/DMT sales network)



| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (2) | Height of Array [m/ft] | Wind Load @ 160 Km/h [kN] | Half Power Beamwidth [deg] (3) | Peak Power Gain [dBd] (4) |
|----------|---------------|---------------------------|------------------------|---------------------------|--------------------------------|---------------------------|
| | | | | | horizontal plane | |
| 1 | 2 | 42.5/93 | 1/3'3" | 1.2 | 150 | 9.3 |
| | 3 | 62.5/137 | | 1.5 | 240 | 7.5 |
| | 4 | 85/187 | | 1.4 | 360 | 6.3 |
| 2 | 2 | 85/187 | 2.2/7'3" | 2.5 | 150 | 12.2 |
| | 3 | 125/275 | | 3.0 | 240 | 10.4 |
| | 4 | 170/374 | | 2.9 | 360 | 9.2 |
| 4 | 2 | 170/374 | 4.5/14'9" | 5.0 | 150 | 15.1 |
| | 3 | 250/551 | | 6.1 | 240 | 13.3 |
| | 4 | 340/749 | | 5.9 | 360 | 12.1 |
| 6 | 2 | 255/562 | 6.8/22'4" | 7.5 | 150 | 16.8 |
| | 3 | 380/837 | | 9.2 | 240 | 15.0 |
| | 4 | 510/1124 | | 8.9 | 360 | 13.8 |
| 8 | 2 | 340/749 | 9.1/29'10" | 10.0 | 150 | 18.1 |
| | 3 | 510/1124 | | 12.3 | 240 | 16.3 |
| | 4 | 690/1521 | | 11.9 | 360 | 15.1 |
| 10 | 2 | 425/936 | 11.4/37'5" | 12.5 | 150 | 19.0 |
| | 3 | 640/1410 | | 15.3 | 240 | 17.2 |
| | 4 | 850/1873 | | 14.8 | 360 | 16.0 |
| 12 | 2 | 510/1124 | 13.7/44'11" | 14.9 | 150 | 19.8 |
| | 3 | 770/1697 | | 18.4 | 240 | 18.0 |
| | 4 | 1030/2270 | | 17.8 | 360 | 16.8 |
| 16 | 2 | 680/1499 | 18.3/60' | 19.9 | 150 | 21.1 |
| | 3 | 1030/2270 | | 24.5 | 240 | 19.3 |
| | 4 | 1400/3086 | | 23.7 | 360 | 18.1 |

(1) square tower cross section, side 640 mm / 25.2 inches

(2) panels and feeding arrangement only

(3) equal power

(4) equal power, no beam tilt, no null fill, midband, typical

Dipoles & Log-periodic Antennas

| Product Code | AL135-50-7 | AD1585-5001G1 | AL125-50-7 | AX465-50-1.P | AV265-1.C | | |
|---|-----------------------|---------------|--------------|--------------------------------|-----------------------------|------|-----------------|
| Frequency range [MHz] | 174 ÷ 240 | 87.5 - 108 | 87.5 - 108 | 87.5 - 108 | 87.5 - 108 (2 sub-bands) | | |
| Polarization | vertical / horizontal | | | circular | | | |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA | 7/8" EIA (2) | 7/8" EIA | 7/8" EIA | | |
| VSWR | ≤1.2 | ≤1.3 | ≤1.3 | ≤1.3 (1.4 at band extremes) | ≤1.3 | | |
| Weight (kg/lbs) | 14/30.86 | 14/30.86 | 27/59.52 | 18/39.68 | 8/17.63 | | |
| Max Wind Load @ 160 km/h | 250 N | 250 N | 620 N | 653 N | 380 N | | |
| Max Power Capability (mid-band) | 2.5 kW | 5 kW | 5 kW | 5 kW | 3 kW | | |
| Peak Power Gain ref. to λ/2 dipole midband [dBd] | 6.0 | 2.0 | 6.0 | -1.5 | -1.5 | | |
| Half-Power Beamwidth (midband) | E-plane | 60° | 65° | 60° | 360° | | |
| | H-plane | 95° | 240° | 95° | - | | |
| Front to Back ratio (dB) | ≥30 | - | ≥25 | - | - | | |
| Size | h | mm | 992 | 1372 | 2050 | 985 | 1455 - 1375 (1) |
| | | in | 39.0 | 54.0 | 80.7 | 38.7 | 57.2 - 54.1 (1) |
| | d | mm | 1200 | 1302 | 2500 | 1280 | 1600 - 1520 (1) |
| | | in | 47.2 | 21.2 | 98.4 | 50.3 | 63.0 - 59.8 (1) |

(1) depending on the channel of operation - (2) Nf connector available on request

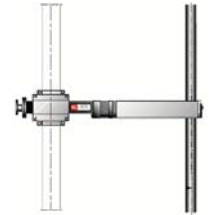
Examples of available systems ~ FM dipole AD 1585-5001-G1 (for other systems, please contact COEL/DMT sales network)

| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (1) | Height of Array [m/ft] | Wind Load @ 160 Km/h [kN] | Half Power Beamwidth [deg] (2) horizontal plane | Peak Power Gain [dBd] (3) |
|----------|---------------|---------------------------|------------------------|---------------------------|--|---------------------------|
| 1 | 1 | 18/39 | 1.4/4'7" | 0.26 | 240 | 2.0 |
| 2 | 1 | 36/79 | 3.9/12'10" | 0.55 | 240 | 5.1 |
| 4 | 1 | 72/158 | 8.9/29'2" | 1.10 | 240 | 8.1 |
| 6 | 1 | 108/238 | 13.9/45'7" | 1.70 | 240 | 9.9 |
| 8 | 1 | 144/317 | 18.9/62' | 2.25 | 240 | 11.1 |
| 10 | 1 | 180/396 | 23.9/78'5" | 2.91 | 240 | 12.0 |
| 12 | 1 | 216/476 | 28.9/94'10" | 3.50 | 240 | 12.8 |

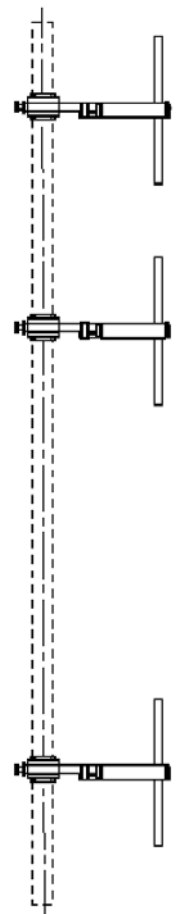
(1) panels and feeding arrangement only

(2) equal power

(3) equal power, no beam tilt, no null fill, midband, typical



FM Dipole
AD 1585-5001G1



Yagi Antennas

| Product Code | AY125-50-7 | AY125-50-2P | AY125-50-3 | AY125-50-4 | AY125-50-4P | AY125-50-5 | AY135-50-4 | | |
|--|-----------------------|-------------|------------|--------------------------|-------------------------|----------------|---------------|---------|----------------|
| Frequency range [MHz] | 87.5 - 108 | 87.5 - 108 | | 87.5 - 108 (3 sub-bands) | | 87.5 - 108 | 174 - 240 | | |
| Polarization | vertical / horizontal | | | | | | | | |
| Input Connector (50 Ω impedance) | 7/8" EIA | 7/8" EIA | 7/8" EIA | 7/8" EIA (2) | 7/8" EIA | 7/8" EIA | 7/8" EIA | | |
| VSWR | ≤1.3 | ≤1.3 | ≤1.3 | ≤1.3 | ≤1.2 <1.15 @f0±2 MHz | ≤1.3 | ≤1.15 | | |
| Weight (kg/lbs) | 15/33 | 15/33 | 10/22 | 13/28 | 18.5/40 | 13/28 | 7/15 | | |
| maxWind Load @ 160 km/h | 440 N | 270 N | 280 N | 350 N | 410 N | 440 N | 200 N | | |
| Max Power Capability (mid-band) | 5 kW | 5 kW | 5 kW | 3 kW | 5 kW | 5 kW | 1.5 kW | | |
| Peak Power Gain ref.to λe/2 dipole midband [dBd] | 7.0 | 3.0 | 4.2 | 5.1 | 5.1 | 6.0 | 5.1 | | |
| Half-Power Beamwidth (midband) | E-plane | 45° | 65° | 65° | 60° | 60° | 60° | | |
| | H-plane | 90° | 150° | 120° | 120° | 120° | 120° | | |
| Front to Back ratio (dB) | - | - | - | ≥20 | ≥20 | - | ≥20 | | |
| Size | h | mm | 1920 | 1795 | 1956 | 1760-1528 (1) | 1760-1528 (1) | 1920 | 924-698 (1) |
| | | in | 75.6 | 70.6 | 77.0 | 69.3-60.1 (1) | 69.3-60.1 (1) | 75.6 | 36.37-27.4 (1) |
| | d | mm | 2842 | 1302 | 1483 | 1606 -1521 (1) | 1606-1521 (1) | 2842 | 874-789 (1) |
| | | in | 111.8 | 51.2 | 58.3 | 63.2-59.8 (1) | 63.2-59.8 (1) | 111.8 | 34.4-31.0 (1) |
| Mast diameter range | mm | 80-114 | 80-114 | 50-95 | 50-95 | 80-114 | 80-114 | max 70 | |
| | in | 3.1-4.4 | 3.1-4.4 | 1.9-3.7 | 1.9-3.7 | 3.1-4.4 | 3.1-4.4 | max 2.7 | |
| Materials | Stainless steel | | | | | | | | |

(1) depending on the channel of operation - (2) Nf connector available on request

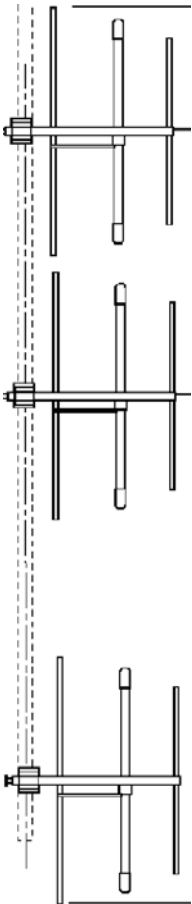
Examples of available systems ~ Yagi FM AY125-50-3 (for other systems, please contact COEL/DMT sales network)

| Nr. Bays | Nr. Faces (1) | Total Weight [kg/lbs] (1) | Height of Array [m/ft] | Wind Load @ 160 km/h [kN] | Half Power Beamwidth [deg] (2) horizontal plane | Peak Power Gain [dBd] (3) |
|----------|---------------|---------------------------|------------------------|---------------------------|--|---------------------------|
| 1 | 1 | 14/30 | 2/6'7" | 0.28 | 240 | 4.2 |
| 2 | 1 | 28/61 | 4.5/14'9" | 0.56 | 240 | 7.6 |
| 4 | 1 | 56/123 | 9.5/31'2" | 1.13 | 240 | 10.4 |
| 6 | 1 | 84/185 | 14.5/47'7" | 1.70 | 240 | 12.1 |
| 8 | 1 | 112/246 | 19.5/63'12" | 2.40 | 240 | 13.3 |
| 10 | 1 | 140/308 | 24.5/80'5" | 2.91 | 240 | 14.3 |
| 12 | 1 | 168/370 | 29.5/96'9" | 3.50 | 240 | 15.1 |

(1) panels and feeding arrangement only

(2) equal power

(3) equal power, no beam tilt, no null fill, midband, typical



Ancillary components - Power Dividers

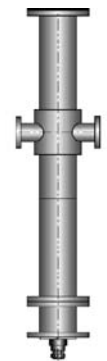
Each power divider type is identified, based on the following parameters:

- Frequency band of operation
- Input / output connectors
- Maximum input power capability
- (balanced/ unbalanced) power distribution among the output ports

□ COEL offer includes a wide variety of power dividers, to satisfy any operational need. The following tables report selected examples of the available power divider types: for unbalanced output power distributions and specific configurations, connector types and power values, please contact COEL/DMT sales network.

VHF I Frequency band

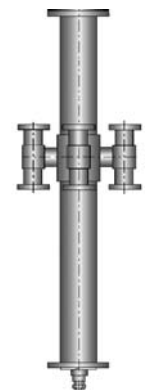
| Product Code | Nr. Ways | Max Input Power Capability [kW] | Input Connector [50Ω] | Output Connectors [50Ω] | Weight [kg/lbs] | Length [mm/in] |
|--------------|----------|---------------------------------|-----------------------|-------------------------|-----------------|----------------|
| NRR210- | 2 | 28.0 | 1 5/8" EIA | 1 5/8" EIA | 11/24 | 3898/153.4 |
| NRP211- | 2 | 56.0 | 3 1/8" EIA | 1 5/8" EIA | 24/52 | 3900/153.5 |
| NRN211 | 2 | 120.0 | 4 1/8" EIA | 3 1/8" EIA | 35/77 | 3900/153.5 |
| NRR315 | 3 | 23.0 | 1 5/8" EIA | 7/8" EIA | 12/26 | 3898/153.4 |
| NRP311 | 3 | 78.0 | 3 1/8" EIA | 1 5/8" EIA | 25/55 | 3900/153.5 |
| NRR410- | 4 | 28.0 | 1 5/8" EIA | 1 5/8" EIA | 14/30 | 3898/153.4 |
| NRP411 | 4 | 78.0 | 3 1/8" EIA | 1 5/8" EIA | 26/57 | 3900/153.5 |
| NRR515 | 5 | 30.0 | 1 5/8" EIA | 7/8" EIA | 17/37 | 4708/185.3 |
| NRR515-3 | 5 | 28.0 | 1 5/8" EIA | 7/8" EIA | 15/33 | 3790/149.2 |
| NRR615 | 6 | 30.0 | 1 5/8" EIA | 7/8" EIA | 18/39 | 4708/185.3 |
| NRR615-3 | 6 | 28.0 | 1 5/8" EIA | 7/8" EIA | 16/35 | 3790/149.2 |



2-way Power divider
VHF I Frequency band
NRP 211

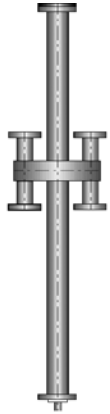
FM Frequency band

| Product Code | Nr. Ways | Max Input Power Capability [kW] | Input Connector [50Ω] | Output Connectors [50Ω] | Weight [kg/lbs] | Length [mm/in] |
|--------------|----------|---------------------------------|-----------------------|-------------------------|-----------------|----------------|
| NRT265-1 | 2 | 8.5 | 7/8" EIA | 7/8" EIA | 6.5/14 | 1815/71.4 |
| NRR261 | 2 | 46.0 | 3 1/8" EIA | 1 5/8" EIA | 15.5/34 | 1741/68.5 |
| NRN268 | 2 | 100.0 | 4 1/8" EIA | 3 1/8" EIA | 24/52 | 1741/71.4 |
| NRT365-1 | 3 | 8.5 | 7/8" EIA | 7/8" EIA | 7/15 | 1815/68.5 |
| NRR365-1 | 3 | 18.0 | 1 5/8" EIA | 7/8" EIA | 9/20 | 2583/101.6 |
| NRTA465-1 | 4 | 8.5 | 7/8" EIA | 7/8" EIA | 6.5/14 | 1610/63.3 |
| NRR465-1 | 4 | 18.0 | 1 5/8" EIA | 7/8" EIA | 10/22 | 2583/101.6 |
| NRR565-1 | 5 | 23.0 | 1 5/8" EIA | 7/8" EIA | 11/24 | 2545/100.1 |
| NRR665-1 | 6 | 23.0 | 1 5/8" EIA | 7/8" EIA | 12/26 | 2545/100.1 |
| NRP665-1 | 6 | 45.0 | 3 1/8" EIA | 7/8" EIA | 20/44 | 2564/100.9 |
| NRR865-1 | 8 | 16.0 | 1 5/8" EIA | 7/8" EIA | 20/44 | 2414/95.0 |
| NRP865-1 | 8 | 80.0 | 3 1/8" EIA | 7/8" EIA | 20/44 | 2660/104.7 |



6-way Power divider
FM Frequency band
NRP 665-1

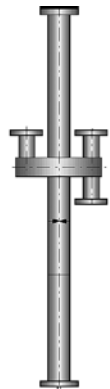
VHF III Frequency Band



4-way Power divider/VHF III Frequency band - NRT 435

| Product Code | Nr. Ways | Max Input Power Capability [kW] | Input Connector [50Ω] | Output Connectors [50Ω] | Weight [kg/lbs] | Length [mm/in] |
|--------------|----------|---------------------------------|-----------------------|-------------------------|-----------------|----------------|
| NRT235-1 | 2 | 7.5 | 7/8" EIA | 7/8" EIA | 4.5/10 | 1326/52.2 |
| NRP230 | 2 | 45.0 | 3 1/8" EIA | 3 1/8" EIA | 14/30 | 1365/53.7 |
| NRN231 | 2 | 70.0 | 4 1/8" EIA | 3 1/8" EIA | 21/46 | 1365/53.7 |
| NRT335-1 | 3 | 7.5 | 7/8" EIA | 7/8" EIA | 4.5/10 | 1326/52.2 |
| NRR330-1 | 3 | 17.0 | 1 5/8" EIA | 1 5/8" EIA | 7/15 | 1363/53.6 |
| NRP331 | 3 | 45.0 | 3 1/8" EIA | 1 5/8" EIA | 15/33 | 1365/53.7 |
| NRT435-1 | 4 | 7.5 | 7/8" EIA | 7/8" EIA | 5.5/12 | 1326/52.2 |
| NRR430-1 | 4 | 17.0 | 1 5/8" EIA | 1 5/8" EIA | 8/17 | 1363/53.6 |
| NRR431 | 4 | 45.0 | 3 1/8" EIA | 1 5/8" EIA | 15/33 | 1365/53.7 |
| NRT535-1 | 5 | 7.5 | 7/8" EIA | 7/8" EIA | 6.5/14 | 1326/52.2 |
| NRR535-1 | 5 | 17.0 | 1 5/8" EIA | 7/8" EIA | 9/20 | 1330/52.3 |
| NRT635-1 | 6 | 7.5 | 7/8" EIA | 7/8" EIA | 7.5/16 | 1346/53.0 |
| NRR635-1 | 6 | 17.0 | 1 5/8" EIA | 7/8" EIA | 10/22 | 1330/52.3 |

UHF IV-V Frequency Band



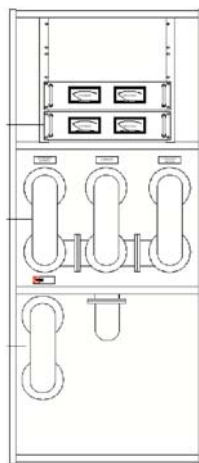
3-way Power divider UHF Frequency band NRR 355

| Product Code | Nr. Ways | Max Input Power Capability [kW] | Input Connector [50Ω] | Output Connectors [50Ω] | Weight [kg/lbs] | Length [mm/in] |
|--------------|----------|---------------------------------|-----------------------|-------------------------|-----------------|----------------|
| NRR252 | 2 | 13-10 | 1 5/8" EIA | 1 5/8" EIA | 4/9 | 464/18.2 |
| NRP251 | 2 | 26-20 | 3 1/8" EIA | 1 5/8" EIA | 12/26 | 486/19.1 |
| NRP250 | 2 | 40-30 | 3 1/8" EIA | 3 1/8" EIA | 12/26 | 466/18.3 |
| NRN251 | 2 | 60-45 | 4 1/8" EIA | 3 1/8" EIA | 16/35 | 476/18.7 |
| NRT255-1 | 2 | 4.0 | 7/8" EIA(*) | 7/8" EIA(*) | 2.5/5 | 456.5/17.9 |
| NRT355-1 | 3 | 4.0 | 7/8" EIA | 7/8" EIA | 3.5/7 | 472/18.5 |
| NRR355-1 | 3 | 13-10 | 1 5/8" EIA | 7/8" EIA | 4.5/10 | 505/19.8 |
| NRP355 | 3 | 32.5-25 | 3 1/8" EIA | 1 5/8" EIA | 12/26 | 466/18.3 |
| NRN351 | 3 | 60-45 | 4 1/8" EIA | 3 1/8" EIA | 18/39 | 624/24.5 |
| NRT455-1 | 4 | 4.0 | 7/8" EIA | 7/8" EIA | 4.5/10 | 472/18.5 |
| NRR455-1 | 4 | 13-10 | 1 5/8" EIA | 7/8" EIA | 5.5/12 | 816/32.1 |
| NRP451 | 4 | 32.5-25 | 3 1/8" EIA | 1 5/8" EIA | 14/30 | 683/26.8 |
| NRN456 | 4 | 46-32 | 4 1/8" EIA | 1 5/8" EIA | 20/44 | 683/26.8 |
| NRT555-1 | 5 | 4.0 | 7/8" EIA | 7/8" EIA | 5.5/12 | 688/27.0 |
| NRR555-1 | 5 | 13-10 | 1 5/8" EIA | 7/8" EIA | 7/15 | 685/26.9 |
| NRT655-1 | 6 | 4.0 | 7/8" EIA | 7/8" EIA | 6.5/14 | 688/27.0 |
| NRR655-1 | 6 | 13-10 | 1 5/8" EIA | 7/8" EIA | 8/17 | 685/26.9 |

(depending on the channel)

(*) 7/16 DIN connector available

Other System Components



Patch panel UHF 4 1/8"
PCN 65-3/F

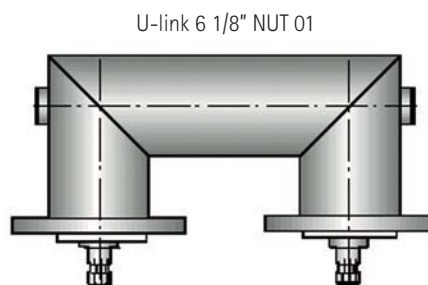
□ COEL offers a wide range of system components:

- "Patch panels" (VHF I, FM, VHF III, UHF frequency bands)
- Channel combiners
 - star point
 - dual bridge
 - line
- Elbows
- "U-links" (EIA 7/8", 1 5/8", 3 1/8", 4 1/8", 6 1/8")
- Adaptors (any combination of EIA standards available)
- Coaxial lines (EIA 7/8", 1 5/8", 3 1/8", 4 1/8", 6 1/8")
- Connectors (EIA 7/8", 1 5/8", 3 1/8")

Please contact the COEL/ DMT sales network for specific information about components.



FM Dual Bridge combiner 10+20kW FCP 222-308

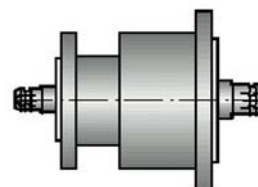


U-link 6 1/8" NUT 01



FM Star-point combiner 4*20kW FCS 224-89

3 1/8" - 4 1/8" Adaptor
CRN 893-50



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- Historic leadership in the market does not reduce **COEL's** commitment to future excellence.

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